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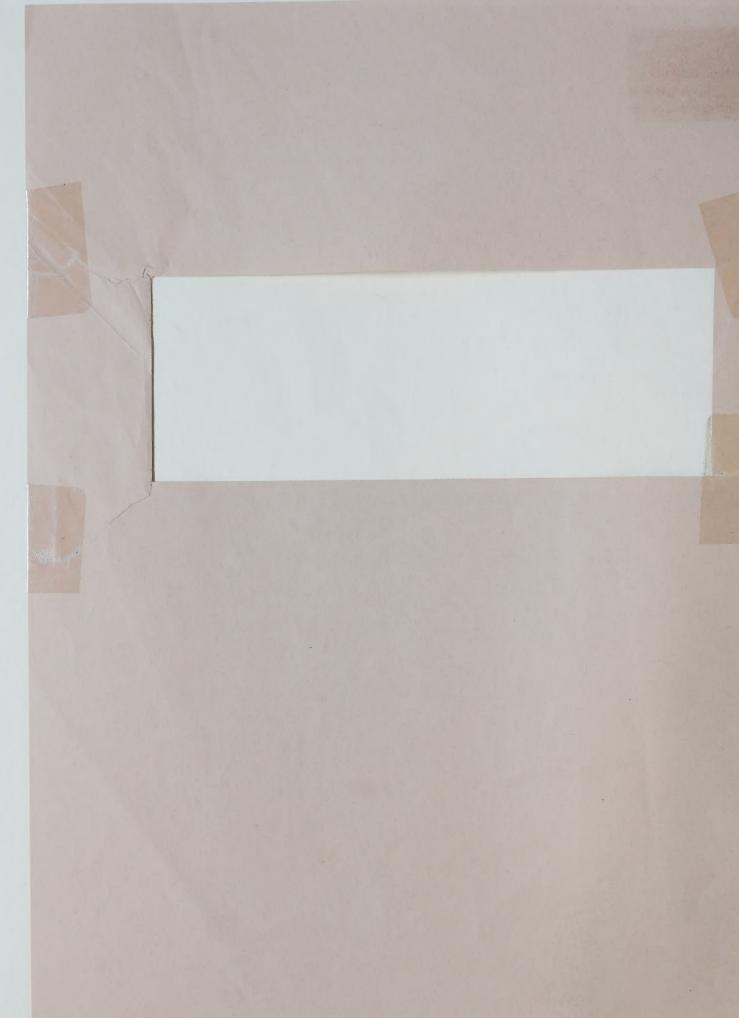
MANPOWER AND THE ARTS: A GROWTH AREA IN CANADA

### CULTURE STATISTICS PROGRAMME

Education, Culture and Tourism Division

### PROGRAMME DE LA STATISTIQUE DE LA CULTURE

Division de l'éducation, de la culture et du tourisme



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April 17 draft

MANPOWER AND THE ARTS: A GROWTH AREA IN CANADA

(ANA)

An Examination of Canadian Census Labour Force Data 1971 and 1981



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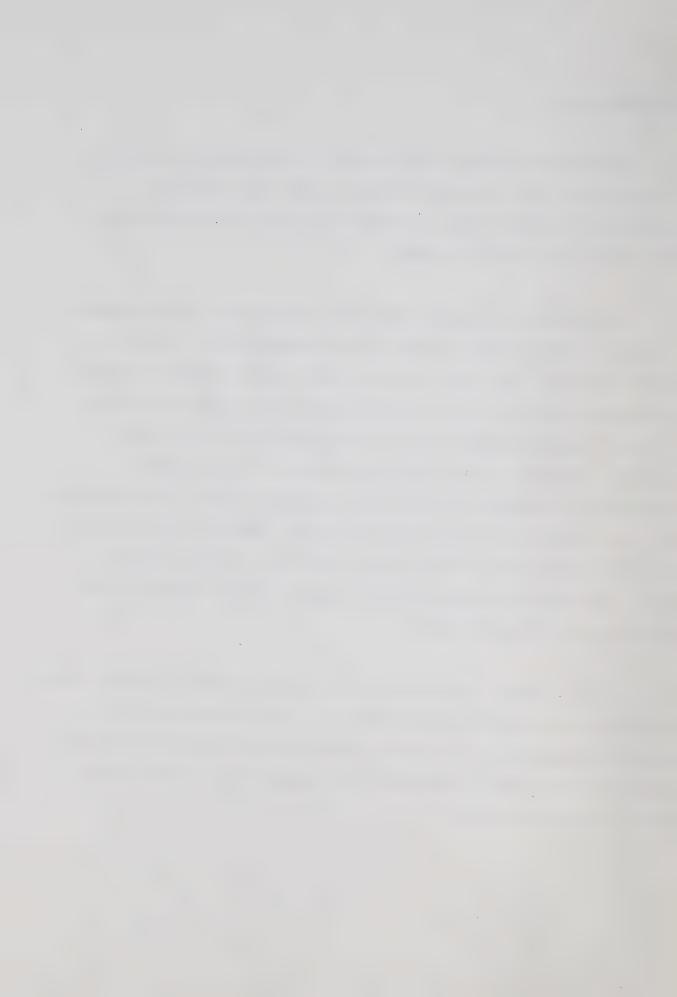
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#### 1. INTRODUCTION

In this brief look at the growth of employment in Canadian arts and culture over the past decade, I shall open with an examination of census taking in Canada and shall include comments on how it varies from the U.S. model.

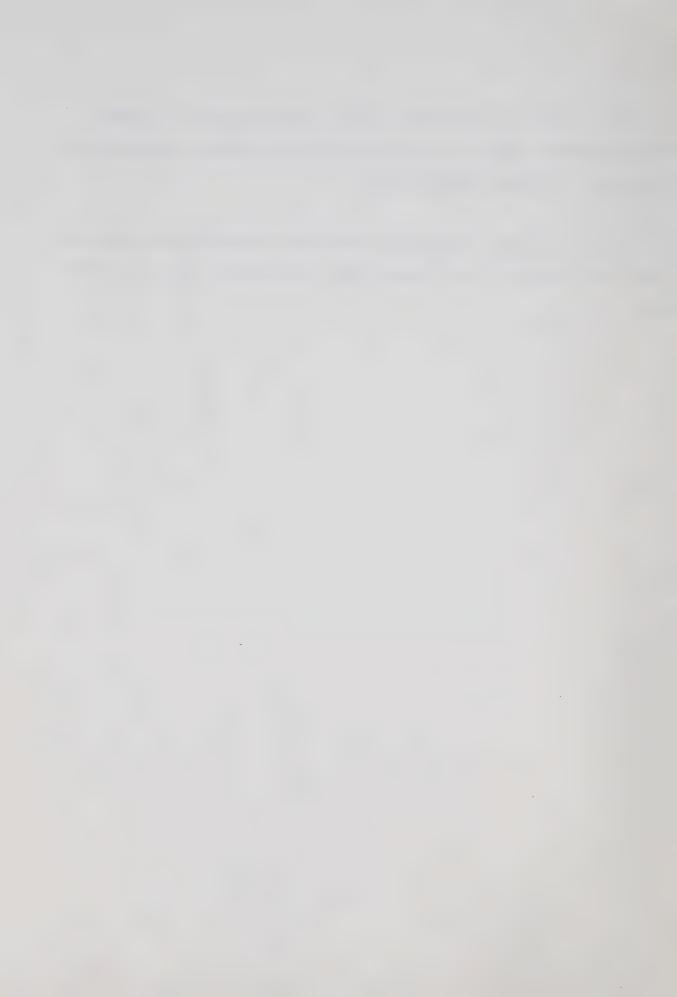
The history, geography and ethnic mosaic of Canadian society has tended to both enrich and stifle the emergence of a sololy Canadian culture. By this I mean that the country gains in variety and diversity from the cultural contribution of its native peoples, its 'newly' acquired population and of course, from its close neighbours. However, these same forces have, to some extent, precluded the development of a unique Canadian culture. Nevertheless, after four hundred years of 'recent' history, Canada is now making a very identifiable and distinctive mark upon the world's cultural scene. The tremendous growth in this segment of our economy is an indication of this development.

In this paper I shall look at the major shifts in labour force activities by occupation and by industry. An examination of the regional developments will then be covered before going on to see the relative contributions of male and female employment to the rapid growth in arts and culture.



Next, levels of education and the age groups of the people vitalizing Canadian culture in the eighties are examined followed by a brief overview of their income levels.

Finally, I shall attempt to draw some conclusions and even to peer into the future of this increasingly significant area of Canadian society.



#### 2. CENSUS TAKING IN CANADA

Since Jean Talon first began an inventory of the population and holdings of the seigneuries in 1666, Census taking in Canada has evolved until, by the time of Confederation in 1867, a nationwide decennial census was formally instituted. The quinquinnial census was introduced in 1956 and has remained ever since. The mandate to carry out the Census is contained in the Statistics Act of Canada (1971) which states that "...a census of population of Canada shall be taken by statistics Canada in the month of June in the year 1971, and every fifth year thereafter....."(1).

For information on the nature of employment in Canada, however, we can only look to the decennial census because that taken in the intervening year does not gather labour force data. For the purposes of this paper, the information has been taken from the 1971 and the 1981 censuses. (It should be mentioned at this point that a labour force survey is taken every month in Canada to determine the levels of employment and unemployment but these data are not covered in this study.)

Before going any further, I would like to address a chart that indicates some of the major differences between the census taken in the United States in 1980 and the 1981 Canadian census.

(1) Statistics Act, Ch.15. item 18(1).

(Show Chart 1) (Overhead)



Chart — 1

## CENSUS TAKING in

CANADA 1981		UNITED STATES 1980
24,300,000	Population	226,000,000
3,851,809 sq. miles	Area	
8	Regional Offices	12
38,000	Employees Involved in Census	400,000
90% from mail back 100% with follow-up	Response Rates	83% from mail back 100% with follow-up
C.C.D.O	Occupational Code System	s.o.c.
S.I.C	Industrial Code System	s.i.c.
Drop-off/Mail-back plus Drop-off/Pick-up	Collection Methodology	Mail-out/Mail-back plus Interview follow-up
20%	Sample Size for Detailed Questionnaire	20%



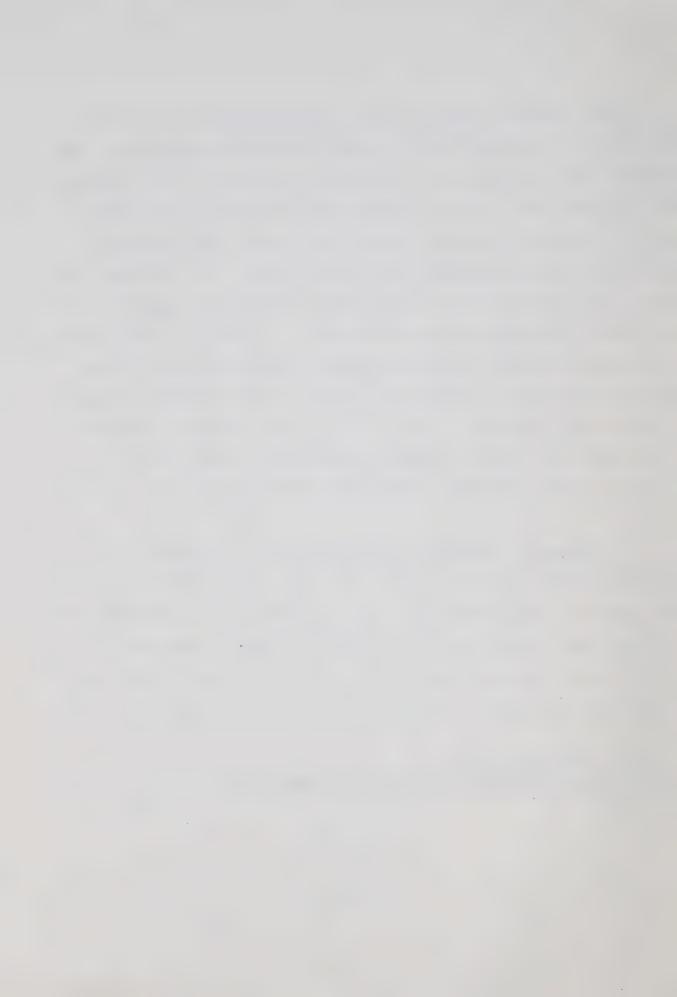
The challenge facing the U.S. census-takers is almost ten times greater than that faced in Canada in terms of population. The geographic area is almost the same for two countries (3,851,809 square miles in Canada and 3,618,467 square miles in the U.S.A.) but the issues of population density, terrain and climate pose different problems for Canadian and American Census takers. The logistics are handled in a similar, but not indentical, way and the results in terms of an overall response rate are comparable. For data on labour force and employment however, there are several major differences: The Canadian labour force is defined in terms of the population 15 years of age and over whereas in the U.S. it relates to persons 16 years of age and over.(3) Another important difference between the two countries is that of coding, particularly for occupations.

In Canada, a Canadian Classification and Dictionary of Occupations (CCDO) was developed in the late sixties and this has been used, with some adaptations, for both the 1971 and 1981 censuses. The 1981 data used in this paper has been made directly comparable to that of 1971 during the coding operation. In the U.S. however, as some of you are only too well aware, the 1980 census had a completely

<sup>(1)</sup> Canada Year Book 1971

<sup>(2)</sup> National Geographic Atlas

<sup>(3)</sup> U.S. Bureau of Labour Statistics, Labour Review



different occupational classification (SOC/Standard Occupational Classification) based on the new U. S. standard. Both countries base their industrial codes on the Standard Industrial Classification (SIC) with some modifications. The differences do not, however, seriously affect the comparability of the two sources.

Sampling for the labour force data was 20% in both countries although in Canada, one in every five homes received the longer form whereas in the U.S. it was one in six for densely populated, urban areas and every other house in rural areas for an <u>average</u> of one in five.

Comparisons of data between the two countries can be made if the occupational code equivalents are carefully selected. Although some analysis can be made, in the case of "arts industries", the level of coding makes specificity rare because the relevant industries are frequently "hidden" within aggregates.



#### 3. LABOUR FORCE IN THE ARTS BY OCCUPATION

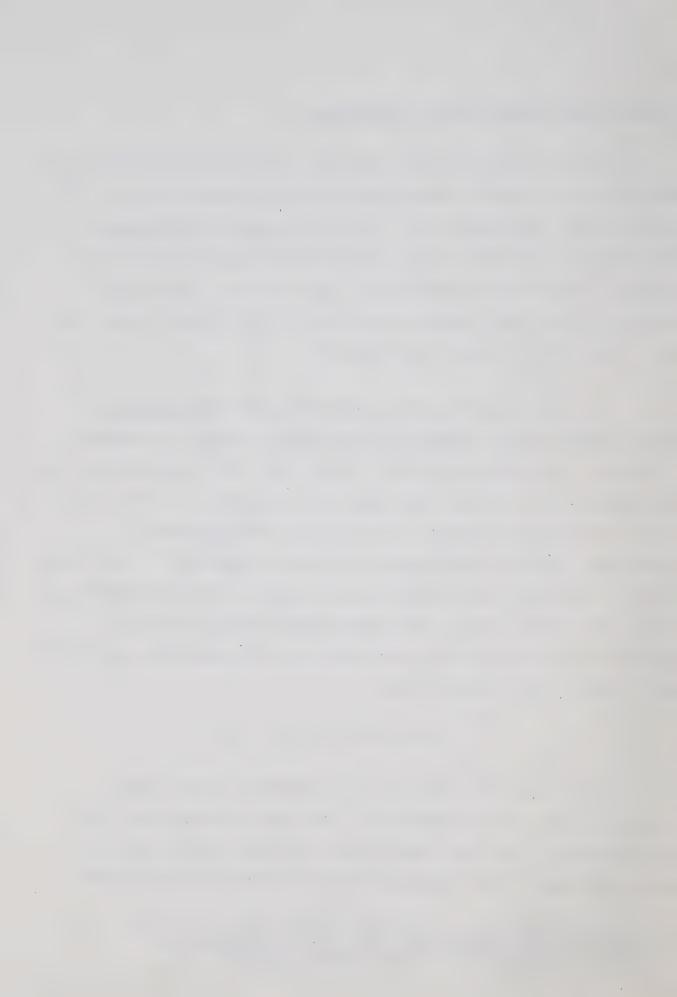
In this, and subsequent sections, I have had to make decisions about what to include as occupations to be considered directly concerned with arts and culture. In the interest of consistency in Canadian data presented to this audience and because I believe the choice of categories is reasonable, I have used the census data produced by Statistics Canada as extracted by the Canada Council last year as soon as they became available.(1)

The coding system used is published in the Occupational Classification Manual, Census of Canada, 1971, Volume 1, Catalogue No. 12-536. By coding to the 1971 system (the 1981 classification had same amendments), the data were made more comparable. The groups selected fall into nine major groups covering thirty-seven occupations. The complete listing is given in appendix 1. Text Table 1 gives a national view of the dramatic growth in these occupations in Canada from 1971 to 1981. The significance of this growth is emphasized when looked at in the context of the population growth and that of the overall labour force:

#### [Show Chart 2 here]

It is clear that the growth of the labour force itself accounts in part for the expansion. This was the decade that saw a large portion of the "baby boom" enter the labour force concurrent with an increase in the female participation rate from 40% to 52%.

A Canadian Dictionary & Selected Statistical
(1) PROFILE OF ARTS EMPLOYMENT 1981, Working Document 525,
Research & Evaluation, Canada Council, 15/1/84



Catalogue NO. 92-920

5

1071 TO 10

1971 TO 1981			
OCCUPATION	1971 CENSUS	1981 CENSUS	Z CHANGE
TOTAL LABOUR FORCE	8,626,930	12,005,320	39
ARTS LABOUR FORCE	156,455	272,640	74
as a % of Total Labour Force	2%	2%	190
ARCHITECIS & ENGINEERS (214/215)			
2141 Architects	4,040	7,110	76
LIBRARY, MUSEUMS & ARCHIVAL SCIENCES (235)	•		121
2350 Supervisors	10,420 1,185	<b>24,060</b> 2,190	1 <b>31</b> 85
2351 Librarians & Archivists	7,225	15,565	115
2353 Technicians	1,430	3,665	156
2359 Other, n.e.c.	580	2,635	354
OTHER TEACHING & RELATED OCCUPATIONS (279)		-,	
2792 Fine Arts Teachers, n.e.c.	14,505	10 405	29
2772 THE ALCS TESCHELS, HICCOCO	14,303	18,685	25
ARTISTIC, LITERARY, PERFORMING ARTS & RELATED (33)	65,445	131,930	102
FINE & COMMERCIAL ART, PHOTOGRAPHY & RELATED (331)	30,000	57,745	93
3311 Painters, Sculptors and Related Artists	2,310	7,950	244
3313 Product & Interior Designers	13,430	21,145	57
3314 Advertising & Illustrating Artists	8,300	18,965	129
3315 Photographers & Cameramen	5,470	9,010	65
3319 Other, n.e.c.	485	680	40
PERFORMING & AUDIO-VISUAL ARTS (333)	18,400	38,475	109
3330 Producers & Directors	3,850	9,750	153
3332 Musicians	9,075	14,650	61
3333 Dancers & Choreographers	370	1,020	176
3335 Actors/Actresses	1,030	2,815	173
3337 Radio & Television Announcers	2,515	5,865	133
3339 Other, n.e.c.	1,565	4,380	180
WRITING (335)	17,045	35,710	110
3351 Writers & Editors	14,780	28,755	95
3355 Translators & Interpreters	1,995	6,240	213
3359 Other, n.e.c.	265	710	168
PRINTING & RELATED (951)	49,705	71,340	44
9510 Foremen	6,710	7,685	15
9511 Typsetting and Composing	12,800	13,730	7
9512 Printing Press	10,990	19,370	76
9513 Stereotyping and Electrotyping	450	135	<b>-7</b> 0
9514 Printing/Engraving - Except Photoengraving	3,040	3,510	16
9515 Photoengraving and Related	1,360	2,605	92
9517 Bookbinding and Related	6,870	10,010	46
9518 Labouring, Other Elemental Work, Printing & Related	1,735	4,175	141
9519 Other, n.e.c.	5,750	10,125	76
FLECTRONIC & RELATED COMMINICATIONS EQUIP. n.e.c. (955)	6,660	9,700	46
9550 Foremen	1,145	1,345	18
9551 Radio & TV Broadcasting Equipment Operators	3,500	4,125	18
9555 Sound & Video Recording & Reproduction Equipment	365	2,095	474
9557 Motion Picture Projectionists	1,465	1,665	14
9559 Other n.e.c.	185	470	154
OTHER CRAFTS & EQUIPMENT OPERATING (959)	5,680	9,815	73
9590 Foremen	770	1,120	46
9591 Photographic Processing	4,535	8,360	84
9599 Other, n.e.c.	160	340	113
	add due to roundi	ng -	
Source: 1981 Census of Canada, Statistics Canada			



Chart - 2

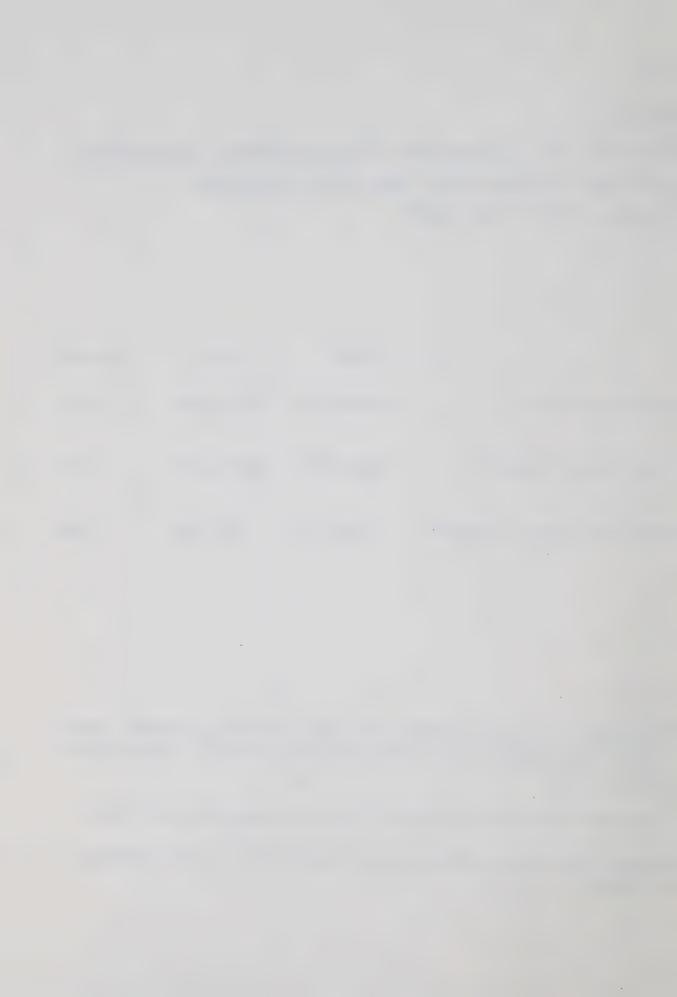
# Growth of Canadian Population, Canadian Labour Force and the Arts Labour Force, 1971 to 1981

	1971	1981	Growth
Total Population	21,568,310	24,343,180	+13%
Total Labour Force (1)	8,626,930	12,005,320	+39%
Total Arts Labour Force (2)	156,455	272,640	+74%

Source: 1981 census of Population, Statistics Canada, Catalogue No. 92-918.

<sup>(1)</sup> Population 15 years of age and over, excluding inmates, who were either employed or unemployed during the week prior to enumeration.

<sup>(2)</sup> As defined in the text using 37 specified occupational codes.



Nevertheless, it was also a decade that included a move towards an ever shorter work-week(1) and flexible working hours; both factors contributing towards more time for leisure activities.

Disposable income grew(2) in the seventies so there were more dollars to spend (for example) on audio tapes and records not to mention video-tapes and all the innovative hardware needed to play them.

Within the occupational groups included in the analysis, where was the growth most dramatic? If we take those occupations showing an increase of over 100% in the ten years being examined, we have eleven categories:

[Show chart 3 here]

The introduction of official bilingualism to Canada has obviously influenced demand for translators, if this group is excluded, we are left with a 'top ten' in terms of particularly rapid growth.

<sup>1 - &</sup>quot;Employment Earnings and hours" catalogue No. 72-002, Statistics Canada.

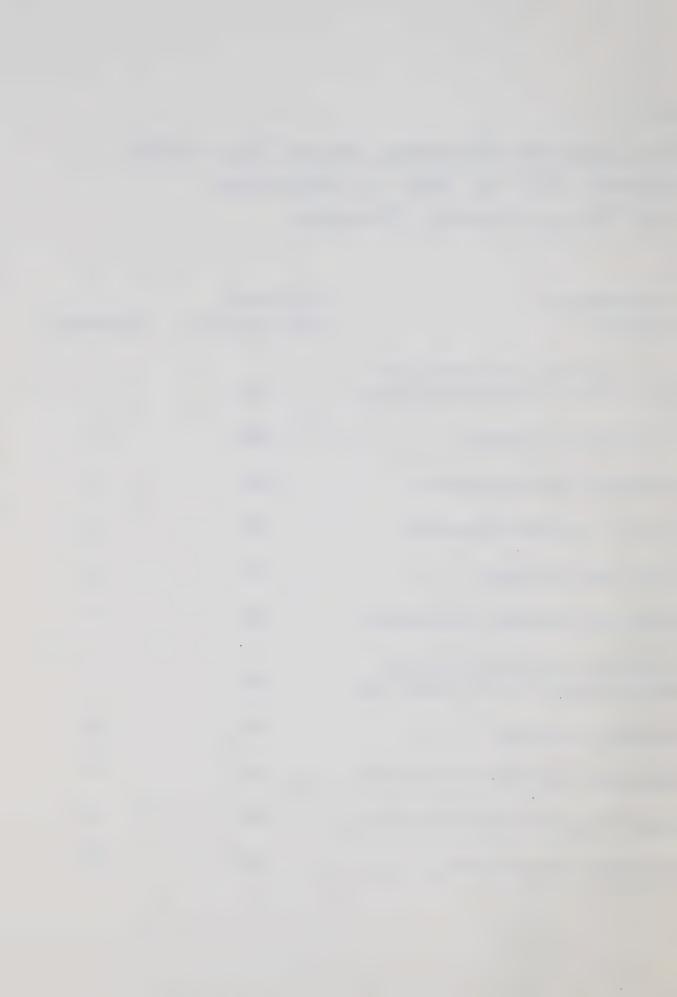
<sup>2 - &</sup>quot;National income and Expenditure Accounts 1967-1981" Catalogue no. 13.201, Statistics Canada.



#### Chart - 3

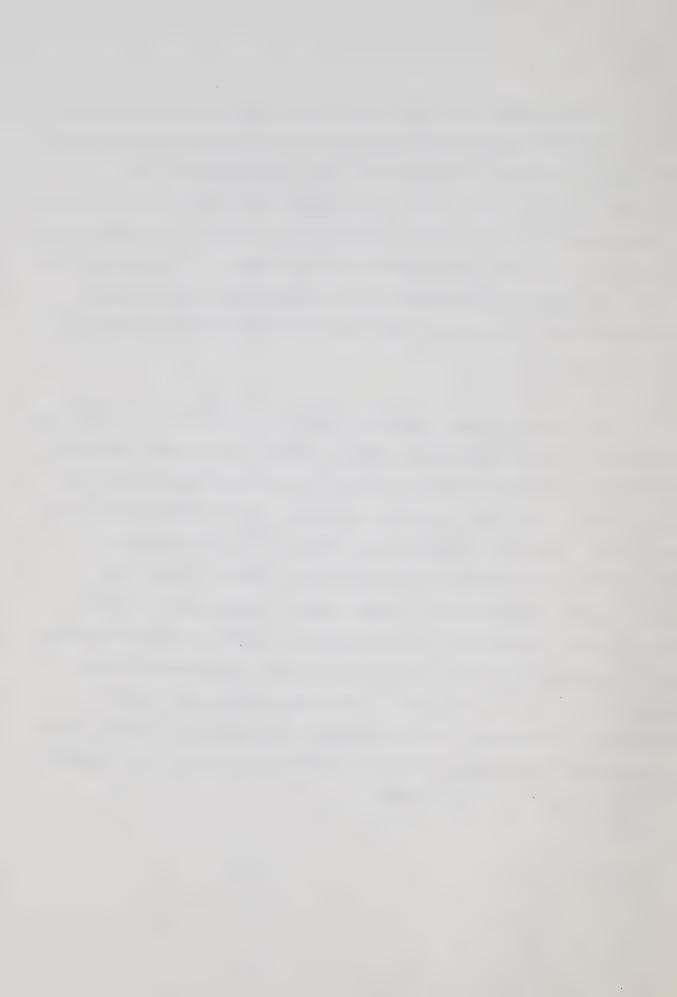
# Occupations Showing More Than 100% Growth 1971 to 1981 (of Selected Arts Occupations), Canada

Occupational Category:	% Growth 1971 to 1981:	Ranking:
Sound and Video Recording and Reproduction Equipment Workers .	474%	1
Painters and Sculptors	244	2
Translators and Interpretors	213	3
Dancers and Choreographers	176	4
Actors and Actresses	173	5
Library and Museum Technicians	156	6
Producers and Directors in the Performing and Audio-Visual Arts.	153	7
Workers in Printing	141	8
Radio and Television Announcers	133	9
Advertising and Illustration Artists .	129	10
Librarians and Archivists	115	11



I have already mentioned sound and video recording equipment; in 1971, only 365 people were working in this field whereas in 1981 2,095 people named this occupation on their census form. Many additional new jobs not covered in the definition above, particularly in the manufacturing and retail sectors of the economy can probably be attributed to the explosive growth in these media. It is an area that one can anticipate will continue to grow and evolve over the next decade and hence will pose a continuing challenge to policy makers in many countries.

The second largest expansion occured in the group 'artists and sculptors'. Even though these numbers exclude those people who have to do some other form of work in addition to their creative work to pay the rent, they still indicate a movement from 1.4% to 2.9% of the arts labour force (or a change from .02% of the labour force to .07%). It is a significant growth and may reflect in part the nurturing role played by the Canada Council (established 25 years ago). Another possibility is that fewer of Canada's creative artists find it necessary to leave the country to gain recognition as was frequently the case in the past. Such speculations are hard to substantiate with data, but one element, which will be examined later, is that female employment in these creative areas grew 514% (compared to 151% for men) over the decade.



The next groups are those of dancers and choreographers and actors and actresses which grew an impressive 176% and 173% respectively. The audiences for the performing arts have attracted la growing proportion of the population/l since 1961, and the decade 1971-1981 also saw an expansion in Canadian performing arts companies/2.

#### Text Table 2

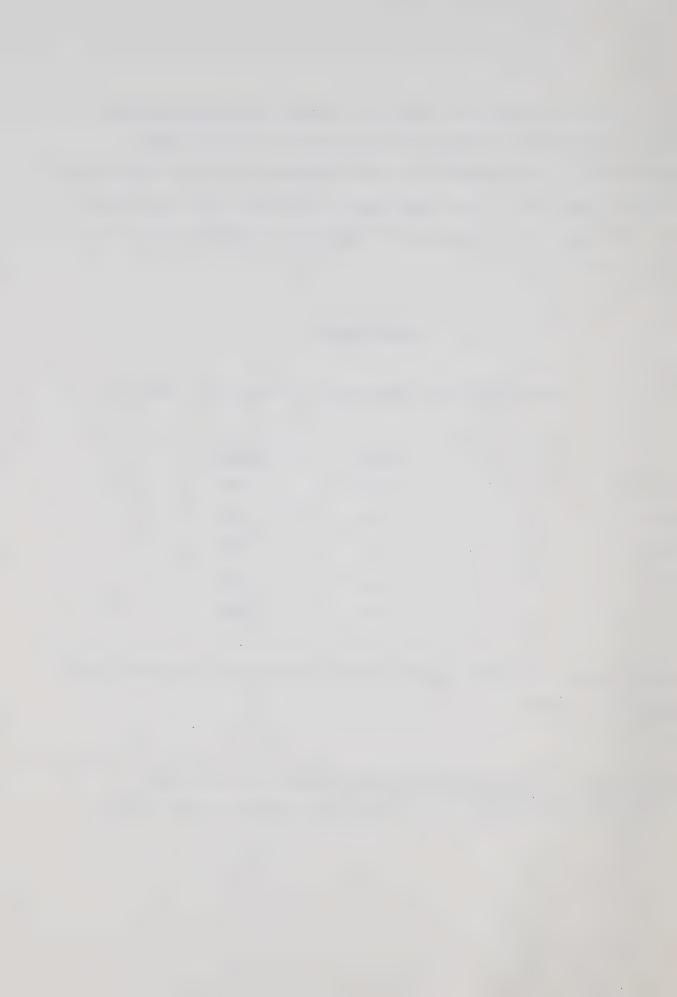
Performing Arts Companies in Canada 1971 and 1981

	1971	1981
Theatre	20	133
Music	13	48
Dance	5	23
Opera	3	6
	41	210

giving artists increased opportunities and openings to pursue their careers in Canada.

<sup>(1)</sup> G. Picot, The Changing Education Profile of Canadians: 1961-2000, Statistics Canada, 1980.

<sup>(2)</sup> Survey of Performing Arts, Statistics Canada, 1981, 87-001



The expansion in library and museum related occupations, particularly on the technical side, is also a response to a demand for more libraries, museums and related institutions.

Text Table 3

### Growth in Numbers of Institutions

	1971	1981
Public Libraries	1,697	3,159/1
University & College Libraries	280	280/2
School Libraries	7,665	7,982/3
Museums	316	547/4
Public Art Galaries	67	127/4

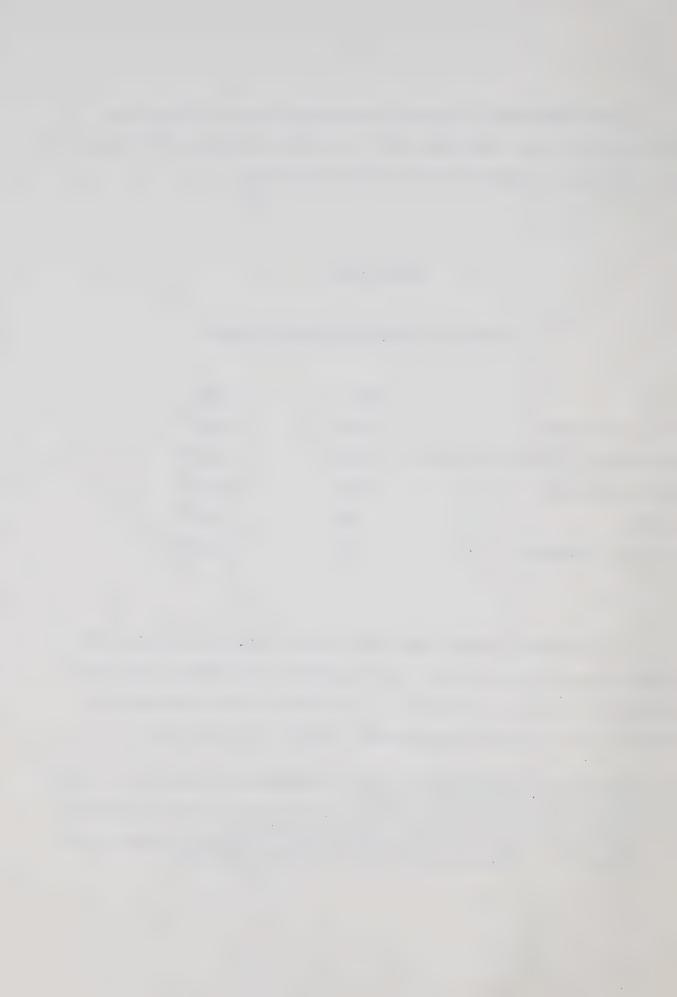
Attendance figures have also risen/4 over the decade which raises the question of cause. An exploration of whether increased leisure time and/or an increase in awareness of our heritage has contributed to these increases would indeed be a challange.

Statistics Canada "Culture Statistics-Public Libraries in Canada (1) 1979-1981" catalogue No. 87-514.

Statistics Canada, Survey of University and College Libraries.

<sup>(3)</sup> 

Statistics Canada, Survey of School Libraries. Statistics Canada "Culture Statistics - Museums, Art Galleries (4) Institutions 1979", Catalogue 87-516. Related



Our leisure studies confirm that attendance figures for such institutions have steadily risen over the decade in question.

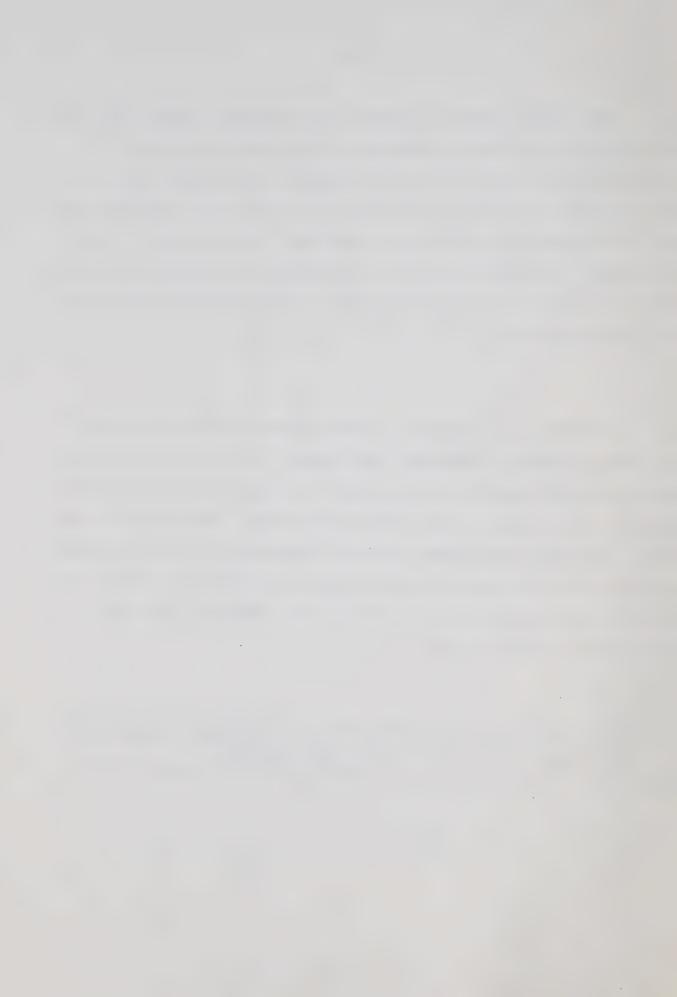
However, although the participation rates(1) at museums tends to rise with increased levels of education, they decline with increasing age.

Thus while education levels have risen over the decade and, it is anticipated, will continue to rise, the age of the population is also increasing so the two forces may cause a levelling off in visits to such institutions.(2)

Producers and directors in the performing and audio-visual arts show a growth of 153% over the decade. We have already touched upon the greater numbers of performing arts companies and upon the expansion and changes in the audio-visual media. More movies, video tapes, television programmes and sound recordings are being produced in Canada than ever before in its history and all these sectors call for government policies and programmes that encourage Canadian participation and awareness.

(2) Survey of Leisure Time Activities, Statistics Canada, 1978.

<sup>(1)</sup> Participation rates are based on the estimated number of adult visitors who made at least one visit to general, science and technology, historical, or maritime museums.



### Text Table 4

### <u>Cultural Industries - Some Indicators 1971-1981</u>

	1971	1981
Number of Productions: Film	4,893 /1 (1970)	6,065
: Video	1,853 /4 (1970)	6,503
Number of Records and Tapes sold	45.4 million	85.8 $million/2$
Number of Radio Stations	404	587
Private Radio and T.V. Employees(3)	10,809	16,534

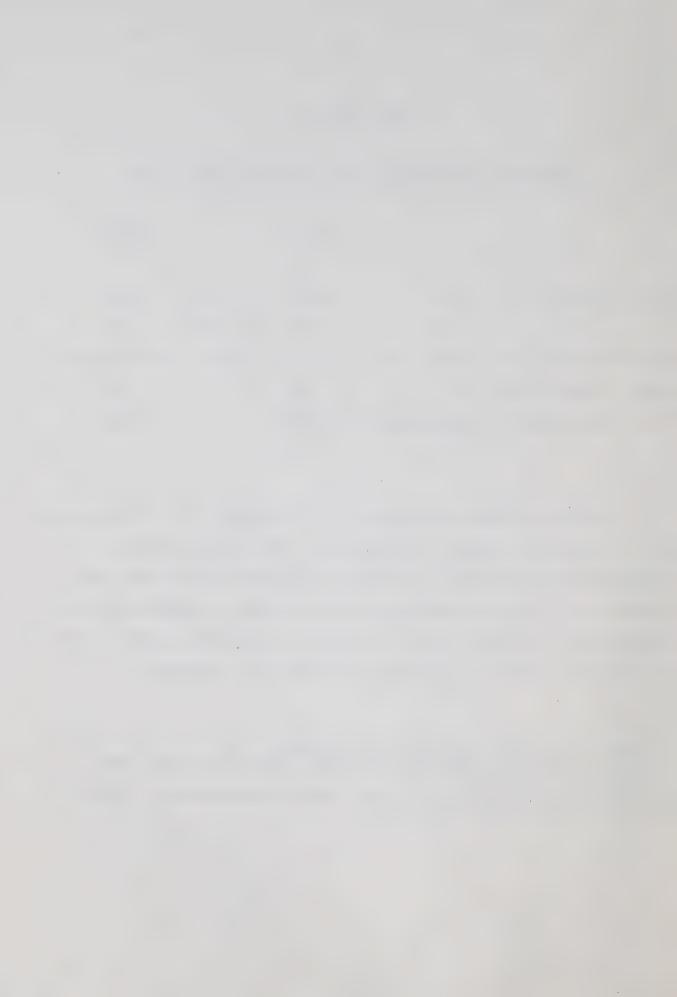
Another occupational group with a dramatic (133%) increase is that of radio and television announcers. This is the primary occupation of almost 6,000 Canadians. The number of stations has increased, as indicated above, and the coverage of broadcasting has broadened with the assistance of Canadian government policies aided by new technology, such as satellites and low power repeaters.

<sup>(1)</sup> Canada Year Book 1972, Statistics Canada

<sup>(2)</sup> Statistics Canada, Phonograph Records and Prerecorded Tapes, Catalogue No. 47-004.

<sup>(3)</sup> Statistics Canada, Broadcasting Industry Catalogue No. 56-204

<sup>(4)</sup> Canada 1973, Statistics Canada



Finally, the more commercial area of advertising and illustrating artists. This important (and often falsely maligned) sector of artistic endeavour frequently attracts the most gifted creators. Here they can engage in their creative pursuits while earning a living. Their art lends a distinctive national colour to advertising; important when one considers the extent to which advertising pervades our lives. A growth of 129% over the ten years is a pleasing one for Canada. In 1961 I personally knew many talented graphic artists fleeing to Madison Avenue or Europe for the exposure they needed. Now, with advertising agencies multiplying both in number and quality, large firms are turning to Canadian creators to promote their products.



### 4. LABOUR FORCE IN THE ARTS INDUSTRIES

Before examining some of the other characteristics of the arts labour force, I looked at the labour force data in some specific industries to see if growth was on the same scale as that for the "arts occupations". Eleven categories were selected, as shown in Chart 4, and are being considered as "arts industries".

The census figures show a significant growth in employment in the publishing industries (110%), book and stationery stores (100%) and theatrical and stage entertainment industries (127%). However, many of the culture industries that would be most interesting to analyse are buried in classifications that are too aggregated to examine (i.e. sound recording is part of "Miscellaneous manufacturing industries not elsewhere specified" SIC Code 399).

Nevertheless, Chart 4 indicates what can be extracted at the three-digit level. By examining these data in the light of our own experience in the Culture Statistics Programme, we can identify some major trends in the industries presently increasing their contribution to Canada's economy.



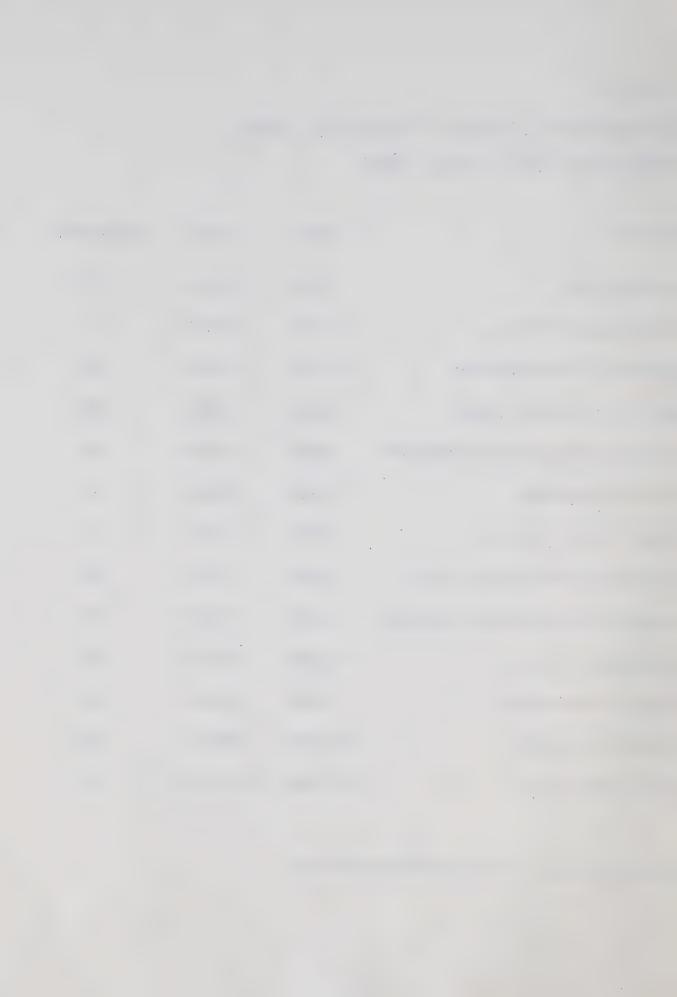
Chart — 4

Canadian Labour Force by Arts

Industry 1971 and 1981

Industry	1971	1981	% Growth
Publishing only	7,035	14,800	110 %
Publishing and Printing	43,730	44,350	1
Radio and TV Broadcasting	24,130	44,635	85
Book and Stationery Stores	8,000	16,025	100
Schools of Fine and Performing Arts	9,055	11,765	30
Libraries, Museums	14,480	27,085	87
Motion Picture Theatres	9,880	11,570	17
Motion Picture Producers & Dist.	4,605	8,520	85
Theatrical and Stage Entertainment	8,410	19,085	127
Advertising Services	14,305	25,915	81
Offices of Artchitects	6,450	12,860	99
Total Arts Industries	150,080	236,610	58
Total Labour Force	8,626,930	.12,005,320	39

Source: Census of Canada, Statistics Canada.



The industries shown in this table show an overall increase of 58% because the dynamic ones indicated above are offset by growth levels markedly less than that of the labour force in general (39%); specifically publishing and printing (1%), schools of fine and performing arts (+30%) and motion picture theatres (17%).

These relative downward shifts are not surprising. Methods of disseminating and consuming information are undergoing major changes and the electronic mode is revolutionizing the print form. Thus we see a rise in Publishing only but a relative decline in Publishing and Printing. Printing operations have undergone automation in a very big way over the decade so that while all our publishing data show increased output, employment in the printing field has not kept pace with labour force growth.(1)

In the world of film, home entertainment is expanding with the introduction of video recorder/players, at the same time cinemas have become much smaller and are more efficiently run. Thus, while motion picture theatre employment grew less than the labour force, a growth of 85% was experienced among firms producing and distributing film.(2)

<sup>(1)</sup> Survey of Book Publishers, Statistics Canada, Culture Statistics Program (Survey of 190 firms with sales of \$20,000 per annum or over).

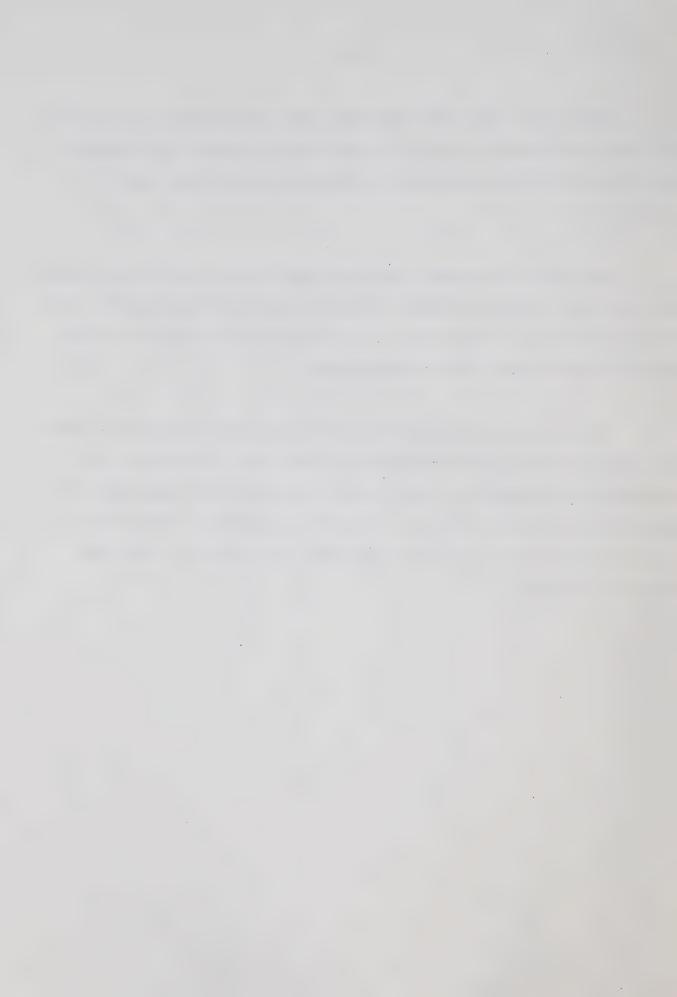
<sup>(2)</sup> Surveys of Film Production and Distribution, Merchandising and Services Division, Statistics Canada.



Schools of Fine and Performing Arts experienced a slow growth rate over the decade. By 1981, the boom having passed, all schools were subject to a levelling off in enrolment as we shall see in Section 8.

As costs of manpower resources have risen, industry has looked for ever more efficient methods of production and dissemination, thus, overall, we see (in text table 5) an augmentation of productivity without a concomitant rise in employment.

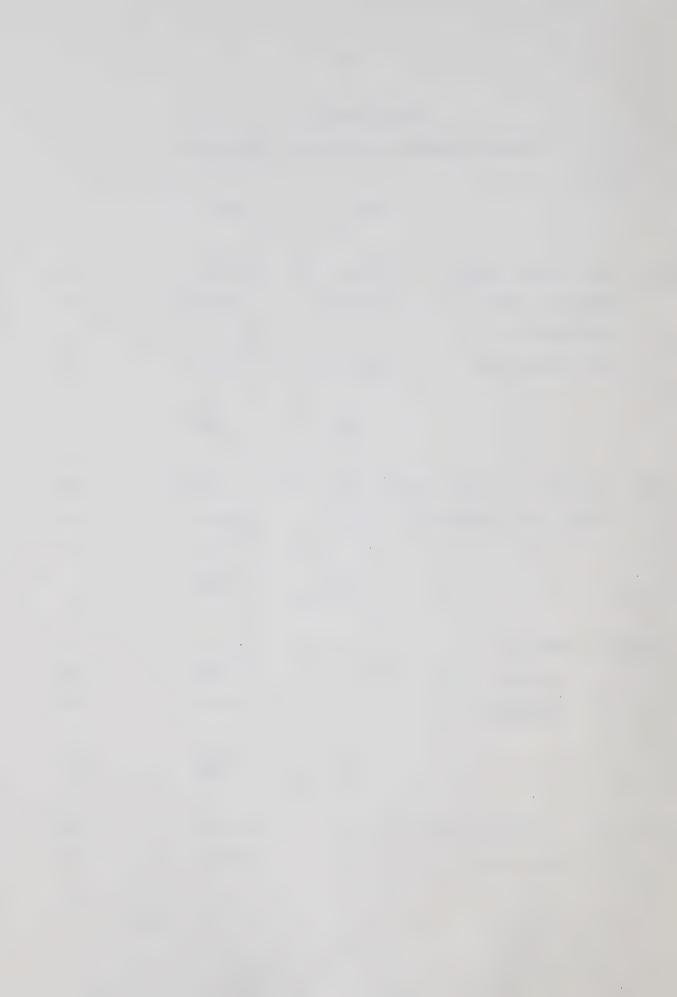
These data are gleaned from various surveys carried out under the auspices of the Culture Statistics Programme in Canada. This programme is co-managed by Statistics Canada and the Department of Communications (DOC). The Cultural Affairs Branch of DOC has the mandate to create policies and programmes in support of arts and culture in Canada.



Text Table 5

Some Indicators in Culture Industries

		1975	1981	
Books:	book export sales	\$ 30M	\$ 112M	+ 273%
	domestic sales employment in	476.6M	1,027.7M	+ 116%
	book publishing	5,137	5,565	+ 8%
	•	1971	1981	
Records:	Records & Pre-recorded	d 45.4M	85.8M	+ 89%
	Tapes sold employment	2,154	2,713	+ 30%
		1975	1982	
Periodic	cals: Value of			
	shipments	\$178M	\$ 488M	+ 152%
	employees	5,961	5,947	- 02%
		1971	1981	
Radio &	T.V.: Operating Exp.	\$433M	\$1,525M	+ 252%
	employees	19,789	28,792	+ 46%



### 5. A Regional Examination

Using the same occupational categories as in Section 3, Chart (5) shows that the distribution of individuals in the "arts occupations" in slightly different from the labour force in general:

Text Table 6

Regional Distribution of Labour Force in Arts Occupations and in Arts

Industries 1971 and 1981

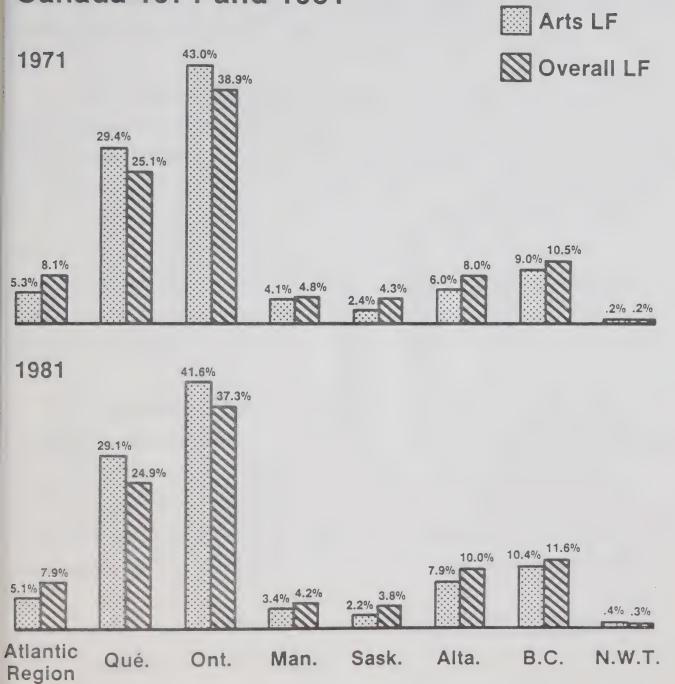
Provinces	1	Force in cupation	Labour Force in Arts Industries	Tota Labour	
	1971 -	1981	1981	1971 -	1981
Newfoundland	.9	.7	1.1	1.7	1.8
P.E.I.	.3	. 4	. 4	.5	. 5
Nova Scotia	2.5	2.4	2.6	3.3	3.1
New Brunswick	1.6	1.6	1.6	2.6	2.5
Québec	(29.4)	29.1	24.3	25.1	24.9
Ontario	43.0	41.6	46.0	38.9	37.3
Manitoba	4.1	3.4	3.4	4.8	4.2
Saskatchewan	2.4	2.2	2.4	4.3	3.8
Alberta	6.0	7.9	7.8	8.0	10.0
British Columbia	9.5	10.4	10.0	10.5	11.6
Yukon	.08	.1	.1	.09	.1
N.W.T.	.1	3	.1	.1	.2
Canada	100	) %	100%	100	8

O Indicates larger percentage than for labour force.



Chart - 5

### Share of Arts Labour Force by Region Compared to Share of Overall Labour Force Canada 1971 and 1981



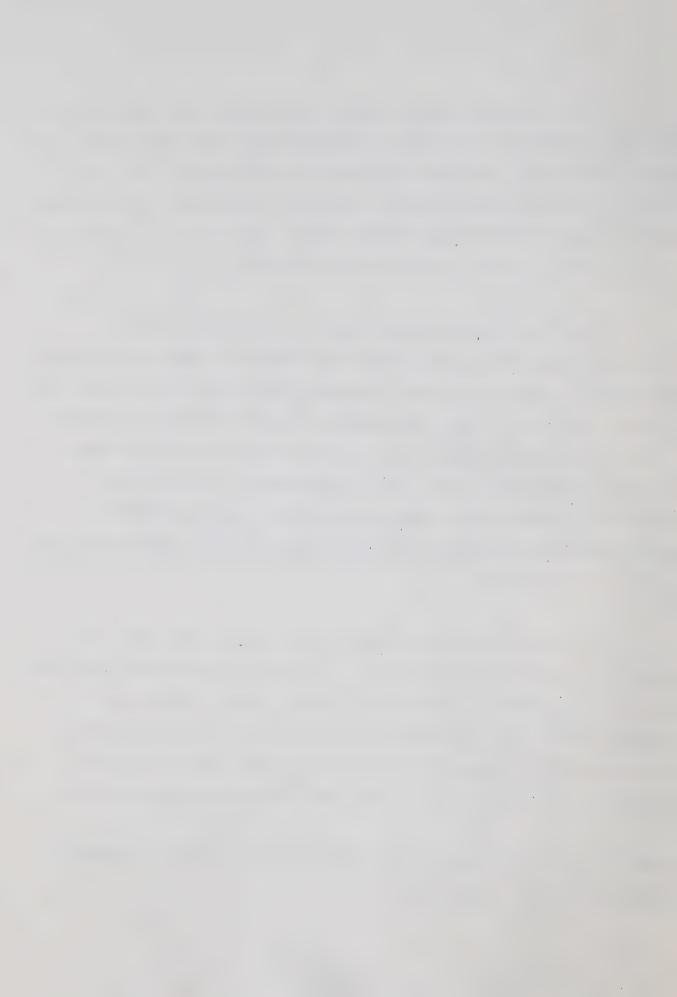


In all provinces except Québec and Ontario, the proportion of arts labour force is less than the proportion of the labour force. In these, the two most populated provinces, the percentage share of people in the arts occupations is noticeably higher than for the labor force in general; in the case of the labour force in arts industries, concentration in Ontario is particularly marked.

In the arts occupations, however, the change in these proportions from 1971 to 1981 shows that Québec and Ontario have lost some ground to Alberta (up to 7.9% from 6.0%) and British Columbia (up to 10.4% from 9.5%). This corresponds to shifts in the labour force in general and, while indicating a greater dispersal amongst these four major provinces, it has been accompanied by a fall in the proportions present in the smaller provinces. The distribution of labour force by arts industry in 1981 reinforces this observation (as shown in Text Table 6).

In a recent discussion paper(1) in Canada, the issue of 'centres of exellence' was raised. In a country as sparsely populated as ours, it is indeed a contentious issue. Travel is long and expensive and if all resources are poured into a few centres many Canadians would be deprived of exposure to many forms of cultural endeavour. On the other hand, when resources are severely limited

Report of the study Committee on Federal Cultural Policy, November 1982. (Applebaum - Hébert Report).



there is little benefit if they are spread too thinly. With technological advances in the reproduction and dissemination of both sound and visual images, reproductions of cultural products can be brought more easily into a home; can this totally, or even partially replace the experience of live performances or actually seeing a work of art?

If the individual occupations are examined, some are dispersed in a pattern more closely aligned to that of the population than others; here again are the major growth occupations discussed earlier, distributed by province:

(Show Chart 5a here)

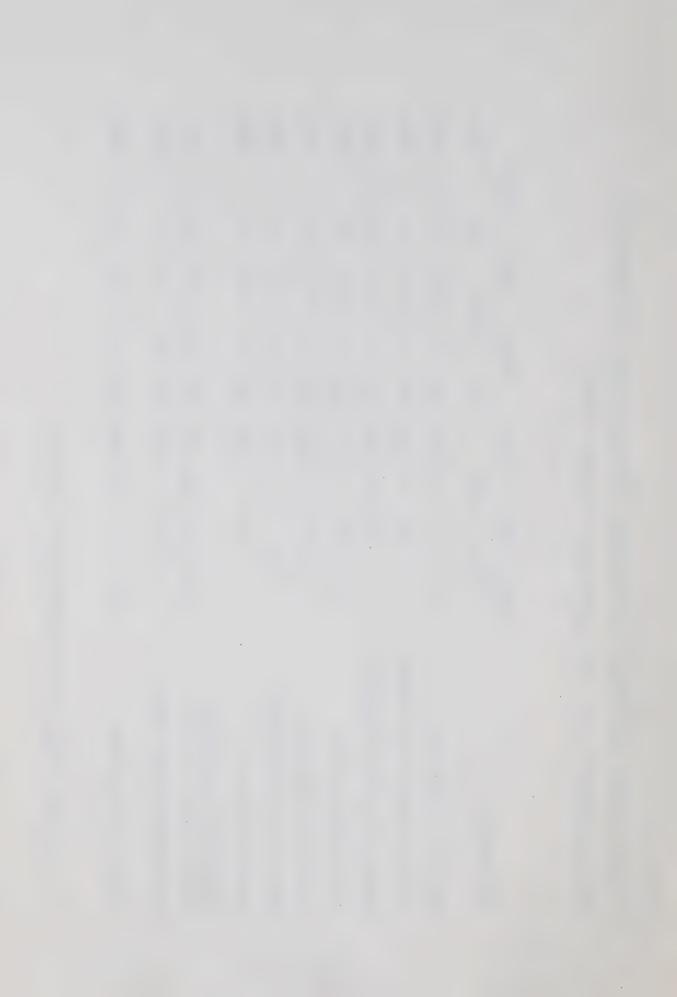
In this Chart I have examined the dispersion across provinces of the arts labour force compared to that of the overall population. The nine groups are shown by province and what is insteresting, and highlighted in the chart, are those occupations represented in greater proportion in a province than their share of the population. Radio and T.V. announcers are the most democratically dispersed across the land and indeed it can be said that Canadians, coast to coast, are able to receive material from Canadian broadcasters, as opposed to 'foreign' emissions received across the border. The state-run (and advertising revenue-assisted) Canadian Broadcasting Corportion (CBC) has done much in recent years to ensure the more remote parts of our country receive adequate coverage with the use of satellites.



# Dispersion Across Canadian Provinces of Specific Occupations of the Labour Force 1981

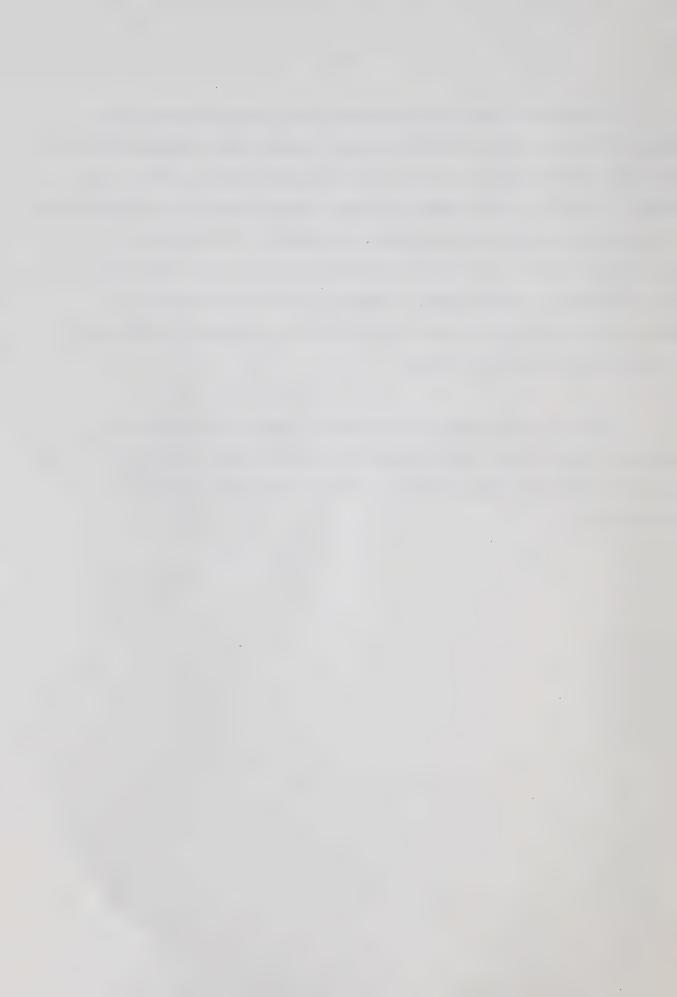
	NEG	- Character	Z.S.		Nfld N.S. Qué. Man. Alta N.W.T.	~	Jan.		Alta	Z	> .	
Occupation	۵.	щ		Z.B.	P.E.I. N.B.	Ont.		ask		B.C.		Ont.   Sask.   B.C.   Total
Librarians & Archivists	1.7	4.	2.7	2.0	1.7 .4 2.7 2.0 24.4 39.1 4.0 4.3 9.5 11.3	39.1	4.0	4.3	9.5	11.3	9.1	100%
Library — Museum Technicians	4.	<u> </u>	1.2	1.2	.4 .1 1.2 1.2 54.8	24.1 1.9 2.6 5.3	1.9	2.6	5.3	7.6	انھ	100%
Painters, Sculptors & Related	9.	7	2.8	1.6	6 .2 2.8 1.6 25.2 37.8 2.5 3.3 6.5	37.8	2.5	3.3	6.5	17.9	1.6	100%
Advert. & Illus. Artists	4.	က	2.2	6.	.3 2.2 .9 25.3	45.9 3.5 2.0 9.5	3.5	2.0	9.5	9.6	4.	100%
Producers & Directors	6.	75.	2.1	1.6	.5 2.1 1.6 36.7	39.3	3.1	3.1 1.5	6.7	7.3	က	100%
Dancers & Choreographers	0.	0.	4.	4.	29.0	51.2	6.4	6.	4.9	6.8	0.	100%
Actors & Actresses	0.	7	1.3	9.	37.9	42.6	1.3	9.	5.0	10.5	0.	100%
Radio & T.V. Announcers Sound & Video Recorder	2.6	7.	3.7	4.2	2.6 .7 3.7 4.2 23.2 32.7 4.3 5.3 9.2	32.7	4.3	5.3	9.5	13.0 1.1	듸	100%
Reproduction Equip. Oper.	7.	7	3.6	rč.	59.0	23.3	1.2	rċ.	4.0	6.7	က	100%
TOTAL POPULATION	2.3	ı.	3.5	2.9	26.4	35.4	4.2	4.0	9.5	11.3	က်	2.3 .5 3.5 2.9 26.4 35.4 4.2 4.0 9.2 11.3 .3 100%

---- Indicates a larger percentage than for the population

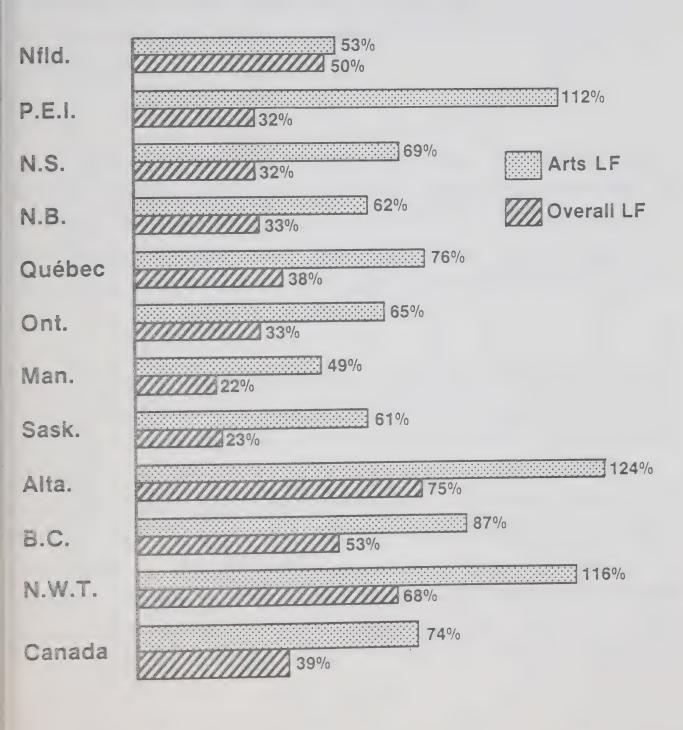


Occupations directly associated with the performing arts, however, such as actors and actresses, dancers and choreographers and producers and directors are much more concentrated in Ontario and Québec. With its world-renowned Royal Winnipeg Ballet, Manitoba shows a significantly greater proportion of dancers (6.4%) than of population (4.2%). Another significant entry on this chart is the 1.6% of painters and sculptors resident in the territories, emphasizing the artistic contribution made by Canada's indigenous peoples, both Inuit and Indian.

Chart 6 illustrates that growth in the arts occupations
exceeded that of the labour force in all provinces; most particularly
in Prince Edward Island, Alberta and the Yukon and Northwest
Territories.



### Growth in the Arts Labour Force in Canada compared to growth in overall Labour Force by Province, 1971-1981





### 6. Equal Opportunity?

The major element in the dramatic growth in employment in the arts occupations over the decade 1971 to 1981 was that of female participation in these occupations. While overall growth has been discussed above, the increased numbers of women in these occupations is striking:

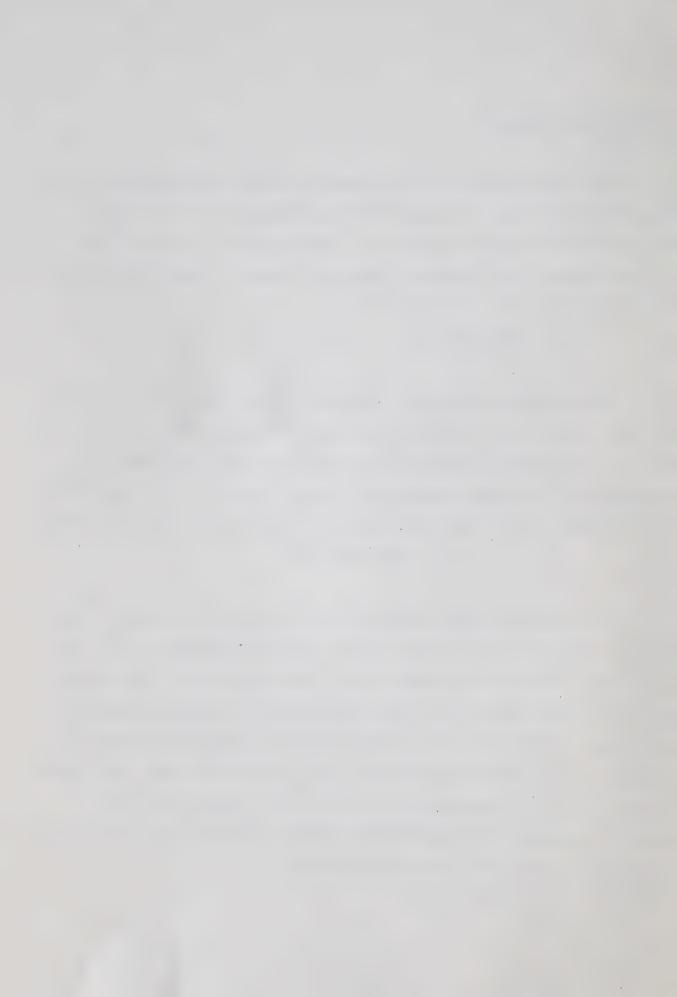
(See Chart 7)

The percentage figures, while very large, sometimes mask the fact that women's participation in certain occupations was so small in 1971 (e.g. architects) that any growth at all would look healthy.

Nevertheless if we also examine the female "share" of the occupations under discussion, we would have to agree that inroads have been made:

(See chart 8)

The libraries and museums occupation as well as those in the teaching field have been traditionally female dominated and in both areas, this trend has increased rather than diminished. The overall rise from a 31% share of the arts labour force to 41% indicates a shift from a 70/30 split to a 60/40 situation; an amazing change in only ten years. Later, I will show that female enrollment and numbers of graduates in fine and applied arts in both universities and community colleges in Canada is much greater than that for men, giving an indication that this trend will persist.



## Growth in Experienced Arts Labour Force by Occupation 1971-1981 by Sex

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Library, museum and Archival occs.

Fine Arts Teachers

Fine and commercial art Photography & related

Performing and audio visual arts

Writing

Printing and related

Electronic and related communications

Other crafts and equip, operating

Total Experienced Labour Force

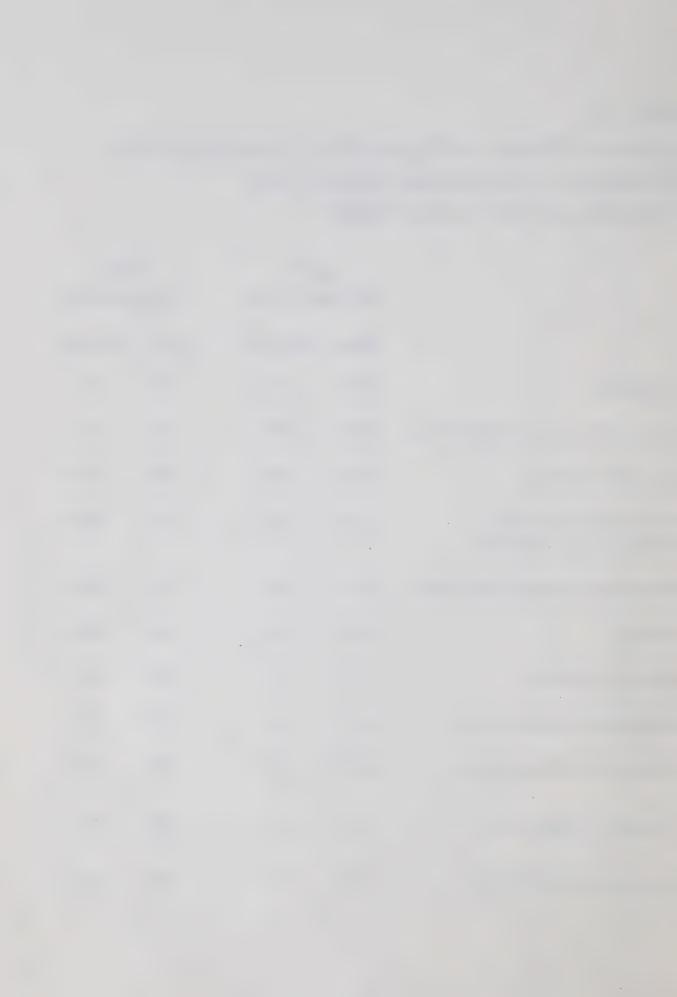
	THE THE THE THE THE STATE OF TH	352%
	11% Female 37%	
4.14	48% IIIIIIIIIIIIIIIIIIIIIIIIIIIIII 221%	
	//////////////////////////////////////	
	25% 111111111111111111111111111111111111	
	32% IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
	123% 43% 123%	
	26% 64%	



Chart - 8

# Labour Force in Specified Occupations Showing Proportion Male and Female in 1971 and 1981

	1971 Proportions			1981 Proportions	
	Male	Female	Male	Female	
Architects	97%	3%	93%	<b>7</b> %	
Library, Museum & Archival Occ.	28%	72%	24%	<b>76</b> %	
Fine Arts Teachers	32%	68%	28%	<b>72</b> %	
Fine & Commercial Art Photography & Related	74%	26%	57%	43%	
Performing & Audio Visual Arts	77%	23%	. 72%	28%	
Writing	66%	34%	54%	46%	
Printing & Related	79%	21%	68%	32%	
Electronic & Related Comm.	95%	5%	86%	14%	
Other Crafts & Equip. Op.	63%	37%	52%	48%	
Total Arts Labour Force	69%	31%	59%	41%	
TOTAL LABOUR FORCE	66%	34%	60%	40%	



#### 7. A young Labour Force in an aging population?

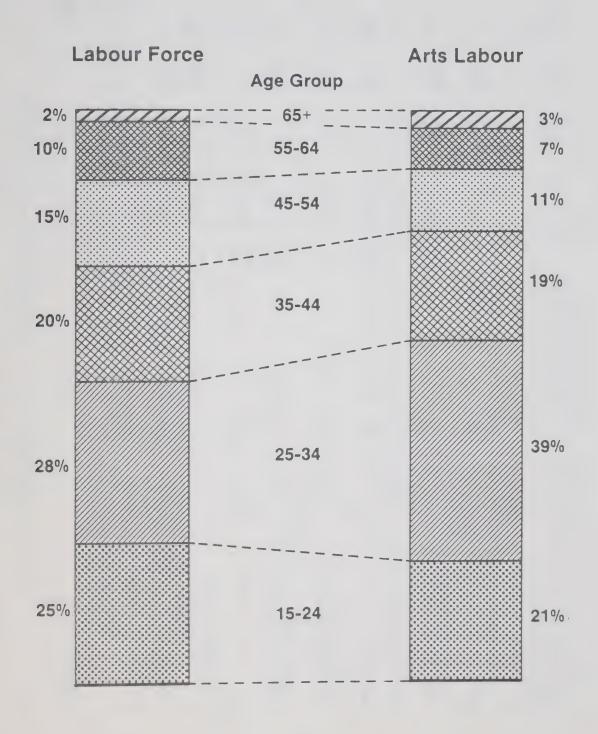
Chart 9 shows us that 60% of the arts labour force is 34 years of age or under compared to 53% for the total labour force. We also see however, 3% of the arts labour force are over 65 years of age, compared to 2% in the total labour force. The proportion under 25 years is smaller (21% compared to 25%) which can no doubt be attributed to the higher levels of education attained by the subject group.

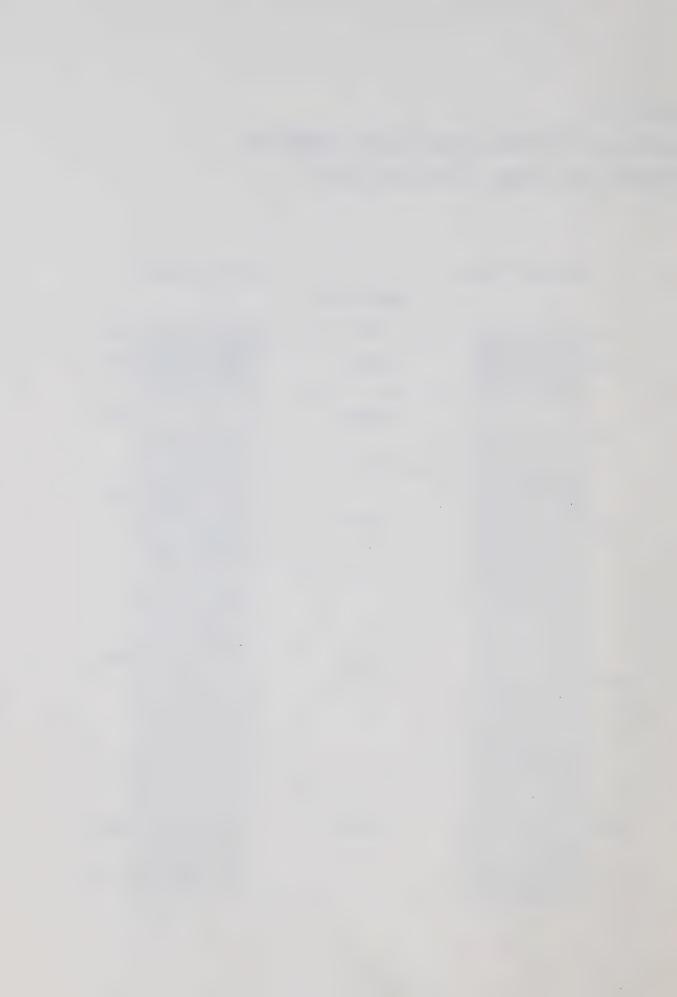
Text Table 7 looks at age groups by sex and occupation group. In the arts labour force, it is in the age group 25-34 years of age that both sexes show the greatest difference from the norm (total labour force). Again, this can be explained by the longer training period together with early retirement/changed occupations that are prevalent in many of the performing arts. We see occupations such as fine arts teachers, writers and some performing arts contributing to the larger percentage of people over 65 years of age.



Chart - 9

# Labour Force and Arts Labour Force by Age Group 1981





Occupations Showing Percentage of Males by Age Group

and Females by Age Group 1981

Male

Occupation

Female

1008 100 100 100 100 100 100 100 4 15-24 25-34 35-44 45-54 55-64 65+ 0 <u>@</u> (P) ~ 10 S 1  $\infty$ 10 9  $\infty$ 12 14 15 14 6 16 12 (d) (3) (a) 16 20 19 18 **(**<del>-</del>) (%) (97) (2) (8) I 16 17 17 Photography & Related Fine & Commercial Art, Electronic & Related Performing & Audio Printing & Related Fine Arts Teachers & Archival Occs. Communications Library, Museum Visual Arts Architects Writing

	15-24	-24	25-34	35-44	45-54	55-64	1 65+	
	16		@	15	4	72	1	100%
	14		9	<u></u>	(2)		0	100%
100%	19		92 (9)	(S) 81	9 =	9,0	6 ~	100%
1008	27		) (2)	15	6	9	1	100%
100%	18	~~	42	(3)	11	7	2	100%
1008	8	6	27	17	(15)	4	2	100%
1008	<u>(5)</u>	0	<del>(</del> <del>-</del>	10	ω	m		100%
1008	<u>(2)</u>		8	17	6	9	r-1	100%
1008	28		28	19	14	80	2	100%

0 - Denotes percentage higher than for the labour force

2

 $\Box$ 

16

20

28

22

TOTAL LABOUR FORCE

10

12

13

(8)

(S)

Other Crafts & Fquip.

Operating



Chart - 10

# Labour Force by Sex and Average Age for Specified Occupations 1971 and 1981

	1971		1981	
	M	F	M	F
Architects	40	35	40	32
Library, Museum and Archival Occupations	38	38	37	38
Fine Arts Teachers	36	40	36	37
Fine and Commercial Art	37	35	36	33
Performing and Audio Visual Arts	32	36	33	34
Writing	38	36	38	35
Printing and Related	36	36	35	35
Electronic and Related Communications Occupations	40	41	36	31
Other Crafts and Equipment Operating	38	37	33	31
LABOUR FORCE	38	36	37	34

Denotes younger than in 1971

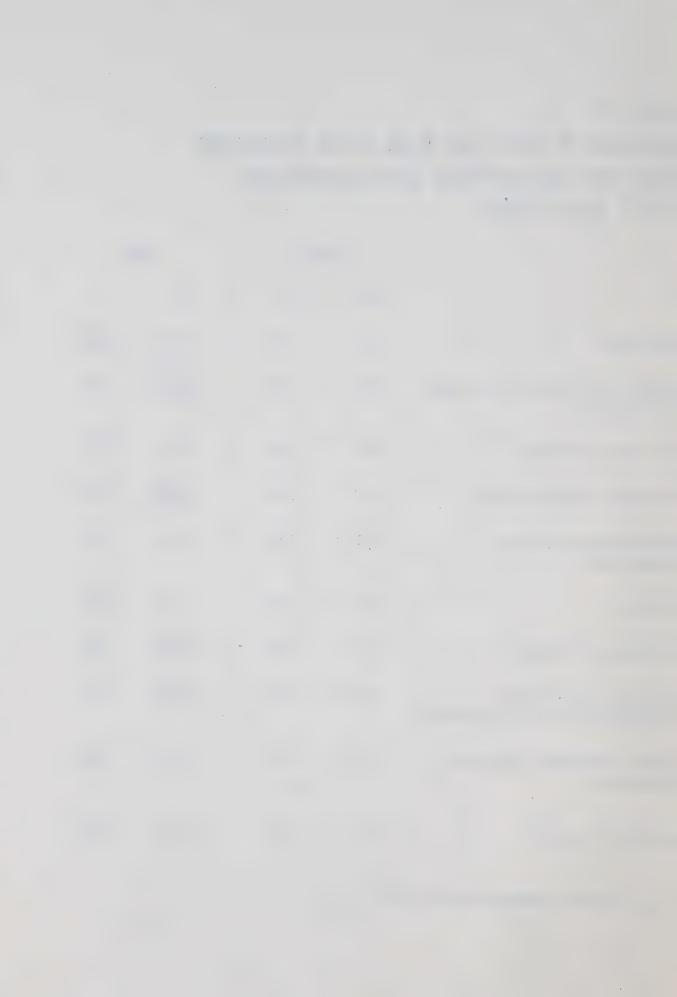
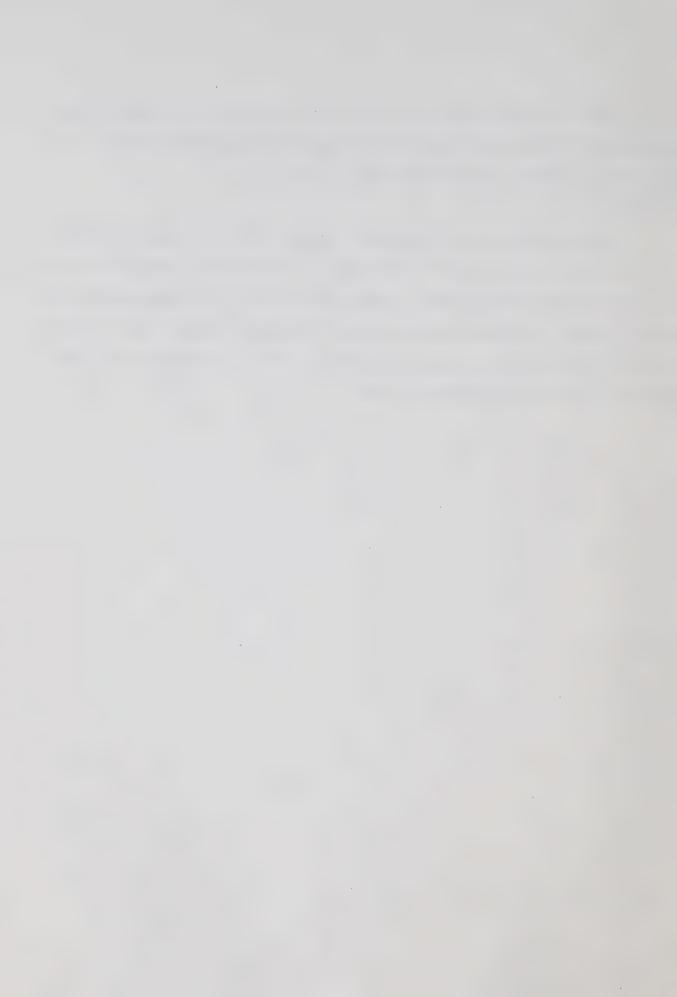


Chart 10 shows data for both 1971 and 1981 and looks at the average age for men and women in the subject occupation groups compared to average age of the labour force.

The average age of the total labour force has gone from 38 to 37 for men and from 36 to 34 for women. In the arts occupations, this lowering of the average age is even more marked and especially so for women. Women in these occupations are not only younger than the men (except in the institutional occupations) but are younger than women were in similar occupations in 1971.



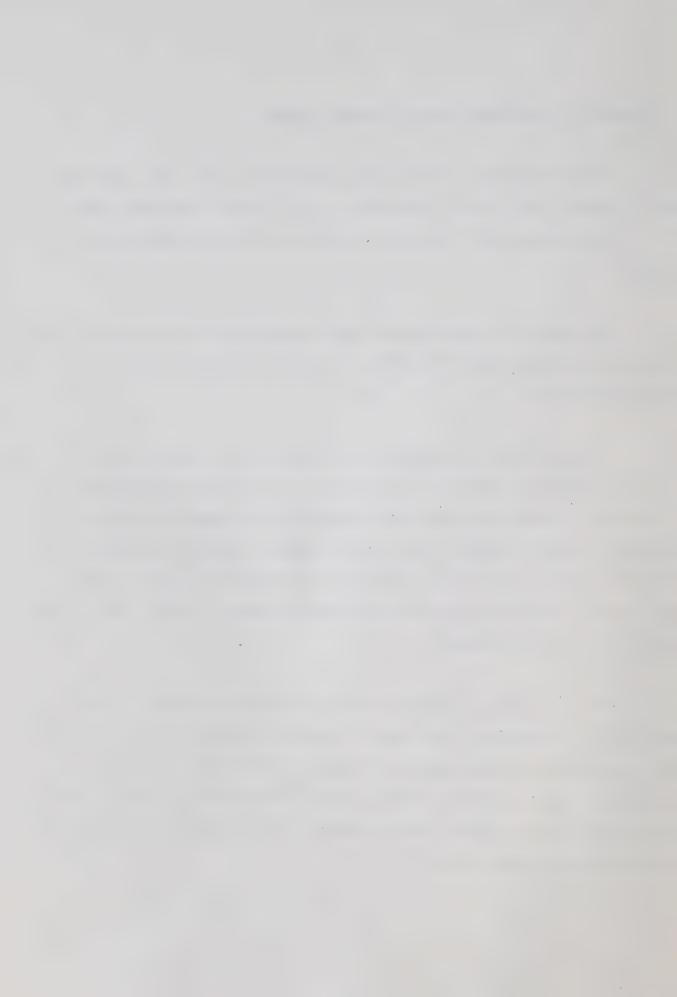
#### . 8. Education Levels of the Arts Labour Force

In this section I have only examined the 1981 data and have done so merely to flag its availability for further analysis and to set it in juxtaposition with the information we have assembled on income.

The people in the occupational categories singled out for this study are well educated. The Chart 11 gives a feel for this educational input.

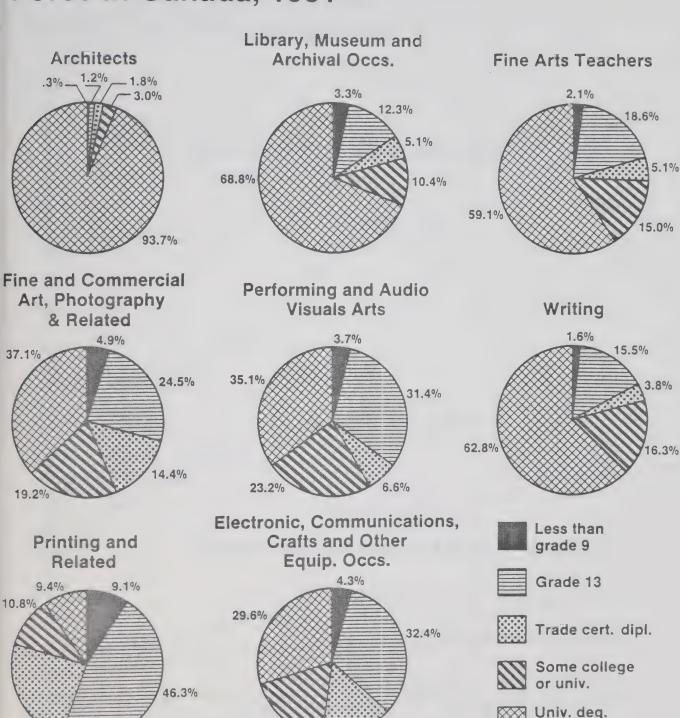
In the first six groupings the majority of people have a university degree, diploma or certificate. In those occupations such as printing, there are trade certificates or diplomas in evidence. Compared to other segments of society, people devoting themselves to arts and culture have put in many years of formal education a fact that is not always recognized in pecuniary benefits (even given a high level of job satisfaction).

Charts 12 and 13 show that while the actual number of persons enrolling is increasing, the rate of growth is levelling off. Again, the considerably larger number of females, both enrolling and graduating lends credence to the previous observation of an increased share of the arts occupations for women; a trend which will obviously continue as mentioned above.



#### Chart - 11

# Education Level of Arts Labour Force in Canada, 1981



cert. or dipl.

18.3%



Chart - 12

# University Enrolment and Graduates in Fine and Applied Arts 1970-71 to 1981-82 by sex

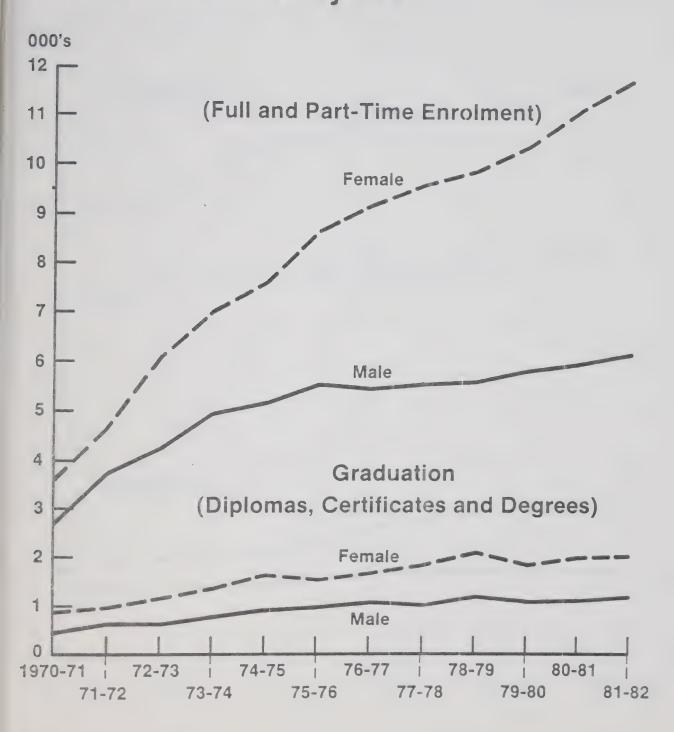
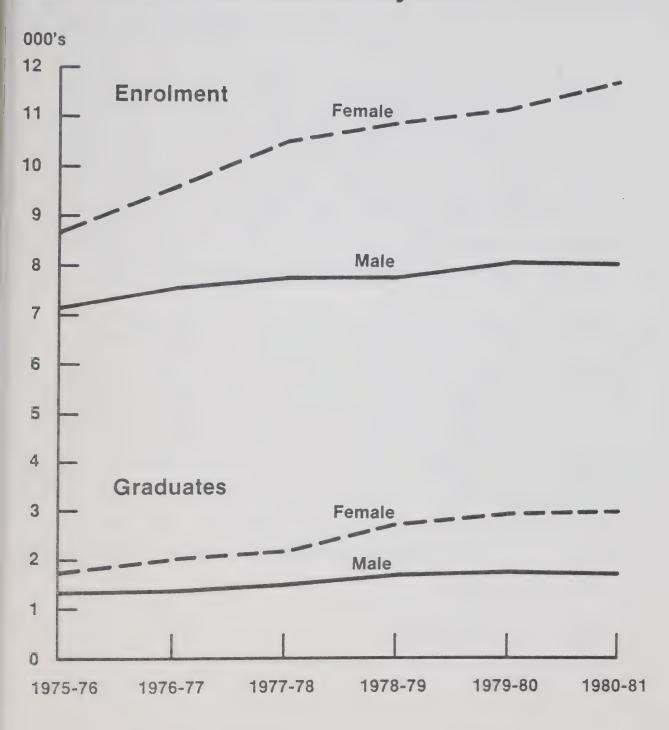
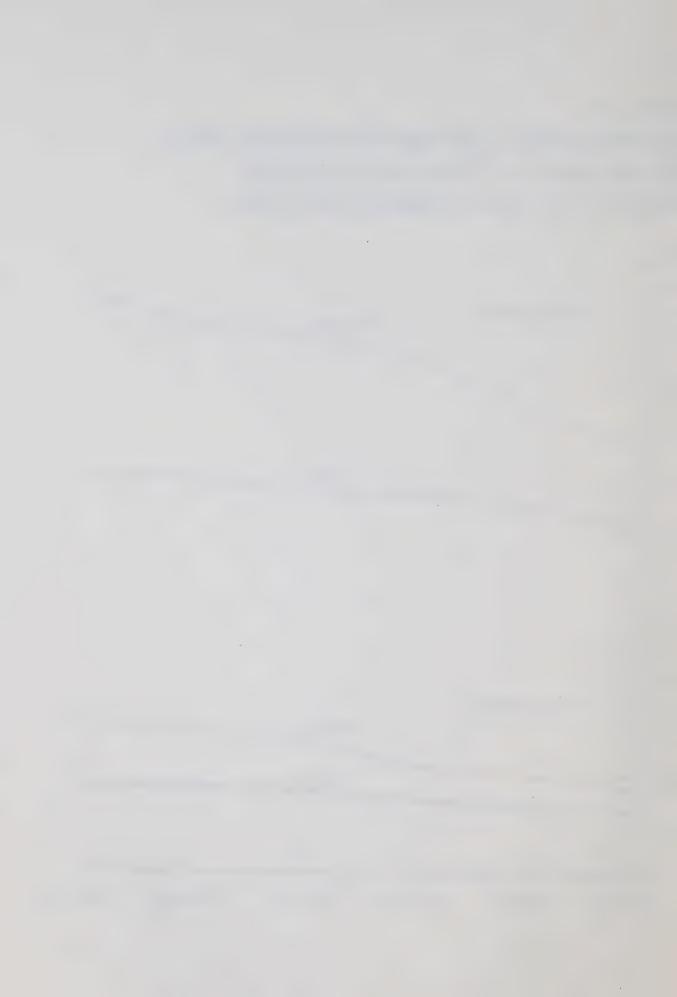




Chart - 13

# Community College Enrolment and Graduates in Fine and Applied Arts 1975-76 to 1980-81 by Sex





#### 9. Income Levels in the Arts

Income data are available for all Census years but we are presenting only the 1981 figures because of time constraints and to serve to whet the appetite.

Chart 14 shows average wage and salary income for the occupations we have been examining. These figures are in 1980 Canadian dollars and include both sexes working full-time and part-time. I should mention that female wage and salary income for arts occupations averages over 40% lower than that of their male counterparts, however, this is slightly better than the situation for women in the labour force as a whole who earn 47% less than men.

Architects, with their years of training, earn \$19,000 a year more than the average for the total labour force and the last four occupational groups (writers, printing occupations, electronic and communications equipment operators, and crafts and equipment operators) earn a little over the average. However, those occupations in the visual arts such as painters and sculptors and all occupations in the performing arts areas earn less, in spite of their arduous preparation and frequently short career span.

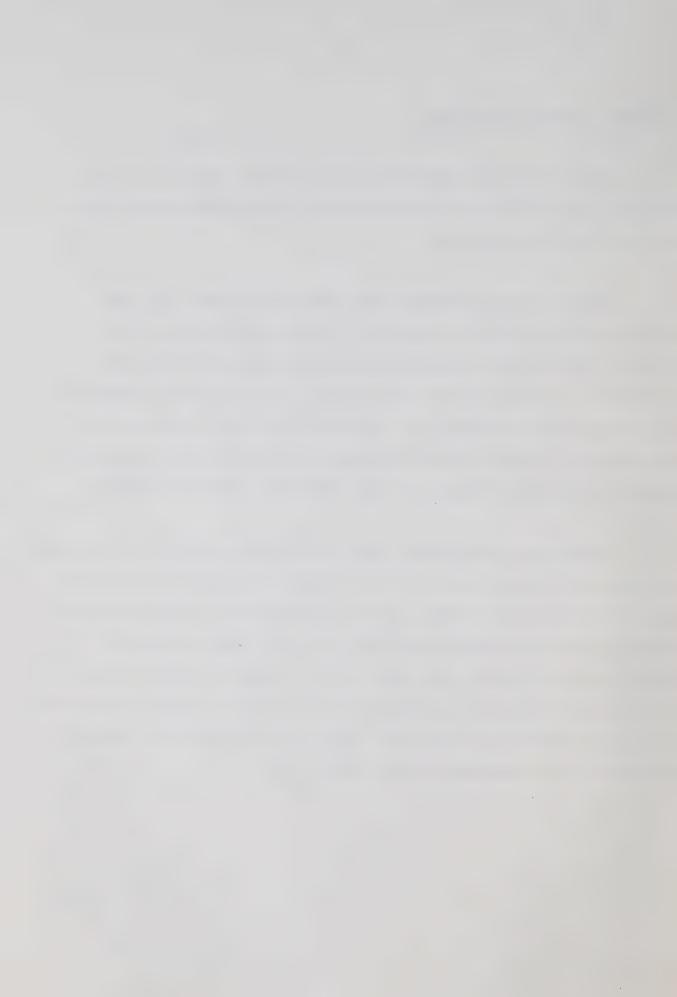
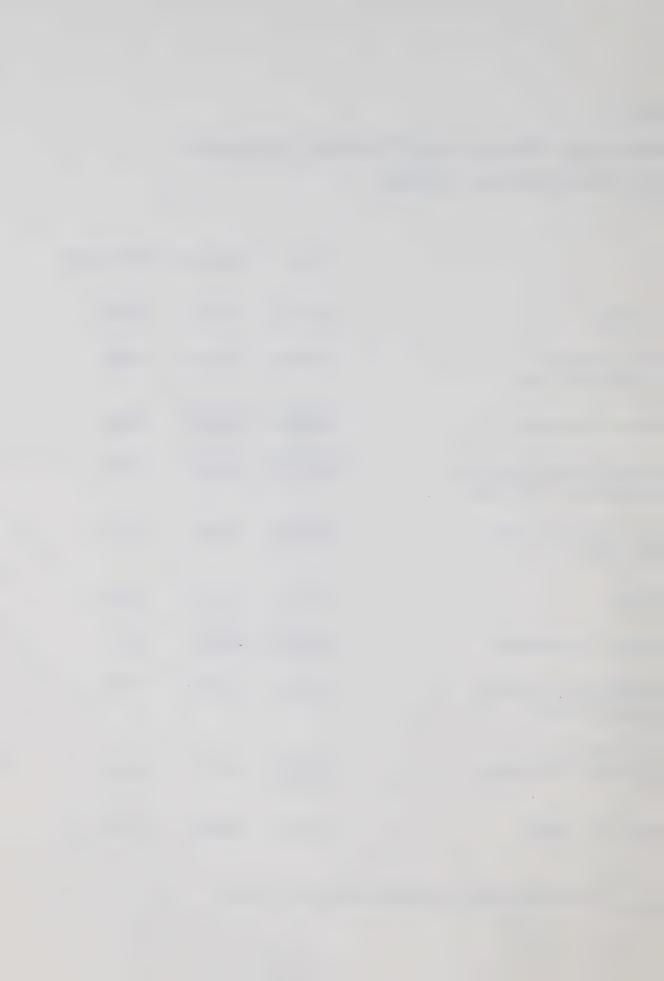


Chart - 14

# Average Wage and Salary Income by Occupation 1981

	Men	Women	Difference
Architects	23,250	12,743	10,507
Library, Museum and Archival Occs.	17,024	12,189	4,835
Fine Arts Teachers	13,330	6,262	7,068
Fine and Commercial Art, Photography & Related	15,127	8,602	6,525
Performing and Audio Visual Arts	14,403	9,524	4,879
Writing	19,191	12,370	6,821
Printing and Related	16,305	8,688	7,617
Electronic and Related Communications	17,526	10,363	7,163
Other Crafts and Equipment Operating	16,079	9,714	6,365
LABOUR FORCE	16,739	8,836	7,903





In Canada, and I know the same is true in the United States, these average figures are skewed by the fortunate few who make large amounts of money and thus the data hide the impoverishment of many of our gifted and creative people, much to the detriment of our cultural heritage. Government policies and programs are constantly seeking ways in which to alter these trends and I hope that with increased emphasis on hard data, policy makers will see the significance of the cultural sector not only in its quality-of-life light but as a major contributor to the economic health of a nation.

Only then will creative talent and effort be adequately rewarded by society.



#### 10. Conclusion

In the decade 1971 to 1981 more Canadians chose to enter occupations connected with arts and culture than ever before. An overall increase of 74% (compared to 39% for the total labour force) in nine major occupational categories and of 58% in eleven industry categories emphasizes the vitality of this sector of the Canadian economy.

Societal changes are continuing in a direction that indicates this trend will persist. More routine jobs will be automated thus freeing people for employment in the arts occupations. Demand is expanding for home entertainment as the technological revolution advances, arts occupations providing that entertainment will continue to grow and in turn futher enrich our lives.

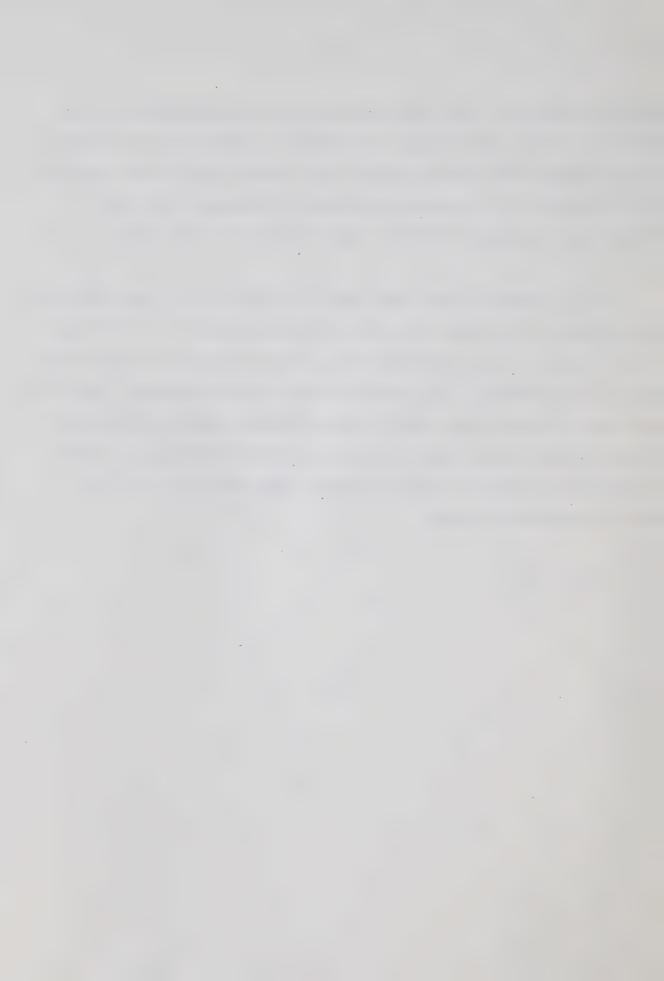
When discussing the growth of employment in arts occupations and industries, it is often felt that the growth is predominantly in the "mass culture" areas, i.e. Harlequin Romances rather than 'good literature', puerile situation comedies rather than 'good drama' or documentaries, rock stars rather than symphony orchestras and kewpie dolls rather than etchings or paintings. Statisticians should not make judgements concerning the quality of culture. We can however present objective facts, or hard data, on as many facets of a



subject as possible. Our facts show that, as a proportions of the total labour force, more people in Canada are painting and sculpting, more are dancing and acting and more are writing than at any previous time in history. By the choices we make as consumers, we will influence the direction in which their talents are developed.

It is apparent from these data, in spite of the very broad and brief glimpse we have had, that the growth discussed will continue. For this reason, it is essential that in-depth analysis be done of all areas of the phenomena. In addition to the spheres covered, there are other areas of study that await further analysis such as examination by major metropolitain area, an analysis of the differences between the English and French Canada and, most importantly, the economic impact of such rapid growth.

Thank you.



# OCCUPATIONAL CLASSIFICATION MANUAL CENSUS OF CANADA, 1971

Based on

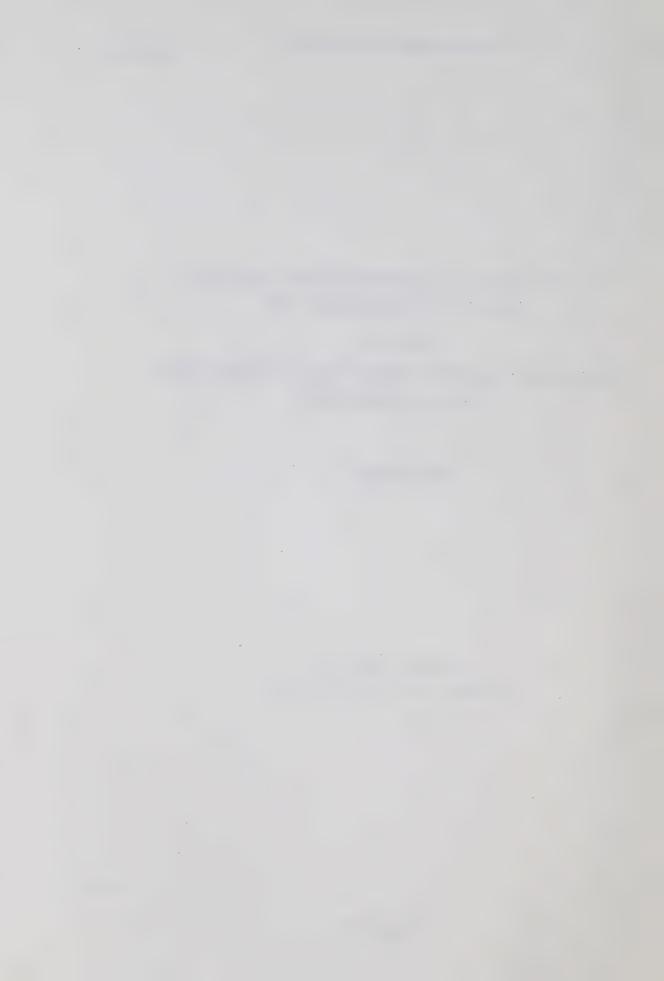
# CANADIAN CLASSIFICATION AND DICTIONARY OF OCCUPATIONS

#### VOLUME I

Published by Authority of The Minister of Industry, Trade and Commerce

ay 1971 202-502

Price: \$5.00



#### SELECTED "ARTS OCCUPATIONS"

#### 2141 - Architects

This unit group includes occupations concerned with the design and construction of buildings and related structures according to aesthetic and functional factors.

### 2350 - Supervisors: Occupations in Library, Museum and Archival Sciences

This unit group includes occupations concerned with supervising and coordinating activities of workers engaged in library, museum and archival sciences as well as superintending and organizing art galleries and similar establishments. Curators are in this unit group. Directors of museums and art galleries are in Unit Group 1132-MANAGEMENT OCCUPATIONS, SOCIAL SCIENCES AND RELATED FIELDS.

#### 2351 - Librarians and Archivists

This unit group includes occupations concerned with organizing, developing and maintaining systematic collections of books and other recorded materials and making them available to users; and collecting and preserving permanent records and historically valuable documents.

### 2353 - Technicians in Library, Museum and Archival Sciences

This unit group includes occupations concerned with performing specialized tasks usually in direct support of librarians, curators and archivists. Activities include: assisting in research projects; identifying and analysing collections of books, specimens, artifacts and papers; restoring various items such as books, paintings and artifacts; preparing exhibitions and displays; and assisting in the preparation of written material or drawings for exhibits or displays.

# 2359 - Occupations in Library, Museum and Archival Sciences, n.e.c.

This unit group includes occupations, not elsewhere classified, concerned with designing exhibits for museums; preserving pictures, statues and other art objects, and searching for data requested by encyclopedia owners.

#### 2792 - Fine Arts School Teachers

This unit group includes occupations concerned primarily with teaching or instructing students in art, music, drama or dancing in public or private schools, academies or conservatories.

#### 3311 - Painters, Sculptors and Related Artists

This unit group includes occupations concerned with creating and executing artistic works by sculpturing, painting, drawing, engraving and etching. Activities include: creating pictures, abstract designs and similar artistic compositions employing paints, pencils, pastels, ink or other media: creating three-dimensional decorative and representational forms by shaping materials such as wood, stone, clay or metal; drawing caricatures and creating cartoons to depict persons and events; and creating original designs and engraving or etching them on metal, wood or other materials for reproduction. Occupations concerned with painting, sculpture, engraving and etching in which work is performed on a production basis are classified in other major, minor and unit groups. Occupations concerned with conserving and restoring art works are in Minor Group 235-OCCUPATIONS IN LIBRARY, MUSEUM AND ARCHIVAL SCIENCES. Occupations concerned with teaching fine arts are in Unit Group 2792-FINE ARTS SCHOOL TEACHERS.

#### 3313 - Product and Interior Designers

This unit group includes occupations concerned with creating designs for industrial and commercial products by harmonizing aesthetic considerations with technical and other requirements; and with designing interior decoration and planning furnishing of studios, homes, buildings and other establishments. Includes occupations concerned with designing and placing objects artistically in show windows and in similar exhibits.

#### 3314 - Advertising and Illustrating Artists

This unit group includes occupations concerned with creating and executing illustrations and designs for books, magazines, posters, roadside billboards, television commercials and for other purposes related to advertising, illustration and the distribution of information. Scientific illustrators are in this unit group. Technical illustrators in the fields of engineering and architecture are in Unit Group 2163—DRAUGHTSMEN.

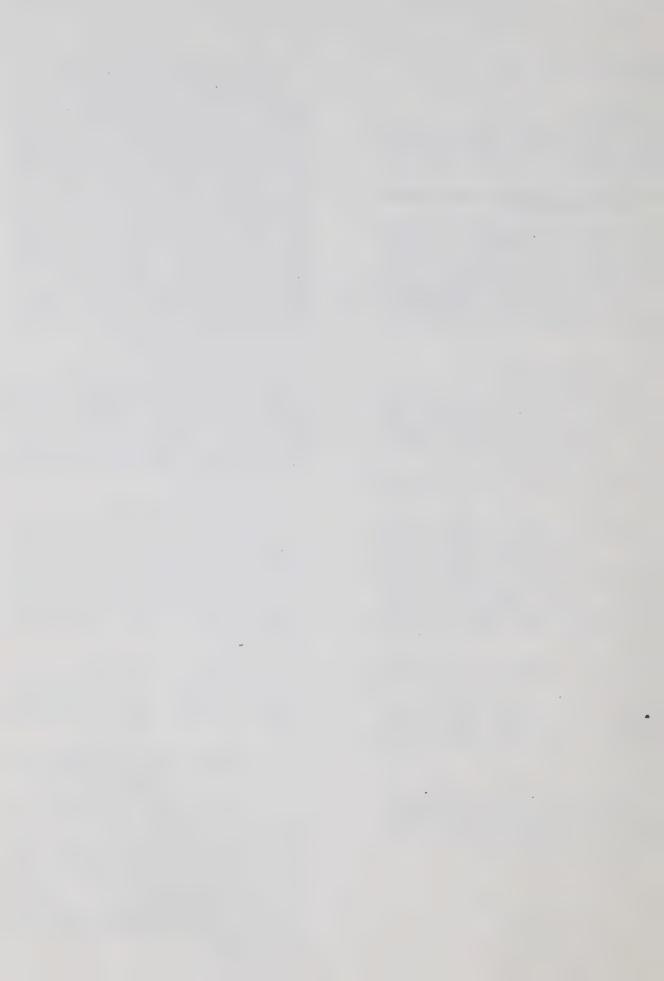
#### 3315 - Photographers and Cameramen

This unit group includes occupations concerned with photographing people, events, scenes, materials and products with still, motion picture, television, microscopic, aerial photography and other specialized cameras.

#### 3319 - Occupations in Fine and Commercial Art, Photography and Related Fields, n.e.c.

This unit group includes occupations, not elsewhere classified, in fine and commercial art,

photography and related fields concerned with activities such as posing for artists and photographers; and performing routine, essentially noncreative aspects of art work or photography under the supervision of artists, photographers, cameramen or other professionals. Occupations concerned with processing exposed photographic still and motion picture film and making photographic prints are in Unit Group 9591—PHOTOGRAPHIC PROCESSING OCCUPATIONS.



# 3330 - Producers and Directors, Performing and Audio-visual Arts

This unit group includes occupations concerned with producing and directing, supervising and coordinating theatrical performances, motion pictures, programmes for radio and television, and other entertainment and instructional programmes.

#### 3332 - Musicians

This unit group includes occupations concerned with composing, arranging, directing and performing instrumental or vocal music. Occupations primarily concerned with teaching music are in Major Group 27—TEACHING AND RELATED OCCUPATIONS.

#### 3333 - Dancers and Chureographers

This unit group includes occupations concerned with composing and performing dances. Activities include: creating dances and instructing dancers in their performance; performing dances as a soloist, with a partner or as a member of a dancing group. Occupations primarily concerned with teaching dancing are in Major Group 27—TEACHING AND RELATED OCCUPATIONS.

#### 3335 - Actors

This unit group includes occupations concerned with playing parts in dramatic productions, on the stage, for television, radio, motion pictures and in other settings. Includes occupations concerned with telling stories and reading literary works aloud to educate and entertain listeners.

#### 3337 - Radio and Television Announcers

This unit group includes occupations concerned with announcing radio or television programmes; preparing, reading and commenting on news, sports and other broadcast events; and giving commentaries on public address systems at sporting and entertainment events. Incumbent must be primarily concerned with announcing rather than editing to be classified here. (See Unit Group 3352.)

# 3339 - Occupations in Performing and Audio-visual Arts, n.e.c.

This unit group includes performing and audiovisual arts occupations, not elsewhere classified, concerned with providing production support services such as, stage properties, costuming supervision

and special effects, assisting with planning and presentation of radio and television programmes; training and presenting animals; performing mystifying, humorous, provocative, thrilling and other acts to entertain audiences. Make-up artists are in Unit Group 6143 — BARBERS, HAIRDRESSERS AND RELATED OCCUPATIONS. Radio and television broadcasting equipment operators, sound recording and reproduction equipment operators and motion picture projectionists are in Minor Group 953 — ELECTRONIÇ AND RELATED COMMUNICATIONS EQUIPMENT OPERATING OCCUPATIONS, N.E.C.

#### 3352 - Writers and Editors

This unit group includes occupations concerned with writing for any form of publication, or for such activities as oral or dramatic presentation. Includes the occupations of editor, critic, reporter and those directly supervising the preparation of materials for publication, broadcasting or dramatic presentation. Activities include: writing, selecting, interpreting and editing news scripts and other materials for information, entertainment, broadcasting, sketches or advertising.

#### 3355 - Translators and Interpreters

This unit group includes occupations concerned with translating written or spoken words from one language to another.

#### 3359 - Occupations in Writing, n.e.c.

This unit group includes occupations, not elsewhere classified, concerned with writing and editing activities.

#### 9510-Foremen, Printing and Related Occupations

This unit group includes occupations, as described under the master title SUPERVISOR/FORE-MAN (any ind.), concerned with supervising and coordinating activities of workers engaged in printing, bookbinding and related activities.

#### 9511 - Typesetters and Compositors

This unit group includes occupations concerned with assembling and setting type by hand or machine. Activities include: operating linotype, monotype and phototypesetting machines; arranging and locking up pages of set-type in predetermined sequence in readiness for printing; and disassembling type after printing.

#### 9512 - Printing Press Occupations

This unit group includes occupations concerned with printing designs or lettering on sheet metal, paper, textiles and other materials by means of cylinder, flat bed or platen printing presses. Occupations concerned with operating office copying, embossing and addressing machines are in Unit Group 4141—OFFICE MACHINE OPERATORS. Occupations concerned with embossing, printing and stamping designs or lettering on paper or other materials by means of machines other than printing presses are in Unit Group 9519—PRINTING AND RELATED OCCUPATIONS, N.E.C.

#### 9513 - Stereotypers and Electrotypers

This unit group includes occupations concerned with making printing plates from moulds or matrices on which type matter and designs have been impressed. Activities include: casting molten-metal into matrix and depositing copper on matrix.

#### 9514-Printing Engravers, Except Photoengravers

This unit group includes occupations concerned with engraving and etching (by hand, machine or chemicals), plates, cylinders, dies, blocks and stones used in printing by letterpress, grayure and direct lithographic processes.



#### 9515 - Photoengravers and Related Occupations

This unit group includes occupations concerned with reproducing line or continuous tone copy on metallic printing plates for use in letterpress and gravure printing, using photo-etching process; mounting and photographing copy; developing latent images on plates; and etching plates to leave raised or depressed printing surface. Production engravers and etchers are in Unit Group 8391—ENGRAVERS, ETCHERS AND RELATED OCCUPATIONS. Artistic engravers and etchers are in Unit Group 3311—PAINTERS, SCULPTORS AND RELATED ARTISTS.

#### 9517 - Bookbinders and Related Occupations

This unit group includes occupations concerned with binding books, pamphlets, business forms and other printed matter by hand and machine. Activities include: folding, gathering and collating signatures; sewing or stapling gathered signatures to form book bodies: pressing, trimming and reinforcing book bodies: fabricating and affixing covers: applying decorations and lettering to bound books; and assembling various types of maps and charts.

## 9518 - Occupations in Labouring and Other Elemental Work: Printing and Related, n.e.c.

This unit group includes occupations, not elsewhere classified, concerned with labouring or elemental work, as described under the term title LABOURER/ELEMENTAL WORKER (any ind.), which are concerned with printing and related occupations.

#### 9519 - Printing and Related Occupations, n.e.c.

This unit group includes occupations, not elsewhere classified, concerned with embossing, printing and stamping designs or lettering on paper or other materials by means of machines other than printing presses. Included are silk-screen printing occupations.

# 9550 - Foremen: Electronic and Related Communications Equipment Operating Occupations,

This unit group includes occupations concerned with supervising and coordinating activities of workers, not elsewhere classified, engaged in operating electronic and related communications equipment.

# 9551—Radio and Television Broadcasting Equipment Operators

This unit group includes occupations concerned with monitoring, controlling and operating radio and television broadcasting equipment. Occupations concerned with operating communications equipment in direct support of transportation, are in Major Group 91 - TRANSPORT EQUIPMENT OPERATING OCCUPATIONS. Teletype operators are in Unit Group 4113 - TYPISTS AND CLERK-TYPISTS. Telephone operators are in Unit Group 4175 - TELE-PHONE OPERATORS. Telegraph operators are in Unit Group 9553 - TELEGRAPH OPERATORS. Ratio and television announcers are in Unit Group 3507 - RADIO AND TELEVISION ANNOUNCERS.

## 9555 - Sound Recording and Reproduction Equipment Operators

This unit group includes occupations concerned with recording, transcribing and reproducing voice, music and other sounds by use of electronic equipment as for radio and television broadcasting, and motion picture and phonograph record production. Radio and television broadcasting equipment operators are in Unit Group 9551—RADIO AND TELE-VISION BROADCASTING EQUIPMENT OPERATORS.

#### 9557 - Motion Picture Projectionists

This unit group includes occupations concerned with operating motion picture projection and related equipment to produce coordinated motion picture entertainment.

#### 9559 - Electronic and Related Communications Equipment Operating Occupations, n.e.c.

This unit group includes occupations, not elsewhere classified, concerned with operating and controlling electronic and related communications equipment.

## 9590 - Foremen: Other Crafts and Equipment Operating Occupations, n.e.c.

This unit group includes occupations, as described under the master title SUPERVISOR. FOREMAN (any ind.), concerned with supervising and coordinating activities of workers, not elsewhere classified, engaged in other crafts and equipment operating occupations.

#### 9591 - Photographic Processing Occupations

This unit group includes occupations concerned with processing exposed photographic still and motion picture film and making photographic prints, such as processing colour and black-and-white films and plates, to obtain negatives or transparent positives; printing and developing black-and-white or colour photographs with contact-printing equipment; enlarging or reducing photographs; or performing related tasks.

## 9599 - Other Crafts and Equipment Operating Occupations, n.e.c.

This unit group includes crafts and equipment operating occupations, not elsewhere classified.

